



# U.S. Department of Health and Human Services Lease Consolidation in Suburban Maryland

## Traffic Technical Report

*Prepared for:*



**The U.S. General Services Administration  
National Capital Region**

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## **Executive Summary**

This Traffic Technical Report has been prepared for the U.S. General Services Administration (GSA) to assess and report potential transportation impacts resulting from the proposed lease consolidation of the U.S. Department of Health and Human Services (HHS). This report identifies the existing and future traffic conditions at five potential locations for the proposed consolidation. Measures to mitigate the potential impacts on the roadway system are also evaluated and presented in the report.

GSA, National Capital Region, has proposed the HHS Lease Consolidation in Suburban Maryland. Currently, HHS has several leases throughout Suburban Maryland, resulting in operational inefficiencies. GSA is proposing to acquire space through leasing in order to collocate four of HHS's current leased locations in Suburban Maryland into one leased location to improve functional efficiency. The number of federal employees to be collocated is approximately 2,900. GSA would enter into a lease agreement for up to 935,401 rentable square feet (rsf) of space. The delineated area for the lease is Suburban Maryland, within Montgomery County and Prince George's County and within three (3) miles driving distance of a Metrorail station. GSA has received multiple offers for sites that are potential locations for the lease consolidation. The five action alternative locations considered for the proposed HHS Lease Consolidation are analyzed in further detail in this Technical Traffic Report. They are, in alphabetical order: Irvington Centre at King Farm (King Farm), New Carrollton Metro, One Largo Metro, Parklawn Building, and University Town Center.

### **ES1. Existing Conditions**

Currently, the majority of the HHS employees to be consolidated are located in the Parklawn Building. Therefore, the existing conditions for the Parklawn Building site include those employees. Each of the other sites being considered does not currently contain office space. Therefore, no HHS employees are considered in the existing conditions at these sites.

Of the five potential locations being considered, two are located in Montgomery County (are Irvington Centre at King Farm and Parklawn Building) and three are located in Prince George's County (New Carrollton Metro Center, One Largo Metro, University Town Center).

In the vicinity of each of the proposed sites, three to five intersections were included for analysis. Overall, under existing conditions all of the intersections studied operate at an acceptable level of service (LOS).

### **ES2. Future Conditions without Proposed Action (No-Action Alternative)**

The Future Conditions without Proposed Action (No-Action Alternative) analysis assumes that all proposed developments in the vicinity of each proposed site, and currently approved for construction by Montgomery County, the City of Rockville, and Prince George's County, will be completed and occupied by 2014 (expected completion of the Proposed Action).

Under the No Action Alternative, most of the intersections are expected to operate at an acceptable LOS during both peak hours. The intersections which are expected to be operating at an unacceptable LOS for each of the sites are as follows:

*New Carrollton Metro*

- None

*One Largo Metro*

- Lottsford Road/Landover Road (evening peak hour)

*Parklawn Building*

- Twinbrook Parkway/Veirs Mill Road (MD 586) (evening peak hour); and
- Twinbrook Parkway/Rockville Pike (MD 355) (evening peak hour)

*University Town Center*

- East-West Highway (MD 410)/Belcrest Road (evening peak hour)

**ES3. Future Conditions with Proposed Action (Action Alternatives)**

The Future Conditions with Proposed Action (Action Alternatives) analysis looks at the 2014 traffic conditions with the proposed HHS Lease Consolidation and the build-out of all planned and approved developments in each of the study areas. Under the Proposed Action Alternatives, the following intersections are expected to operate at an unacceptable LOS at each of the proposed sites:

*Irvington Centre at King Farm*

- King Farm Boulevard/Piccard Drive (morning and evening peak hours);
- Shady Grove Road/Choke Cherry Road (evening peak hour); and

*New Carrollton Metro*

- Veterans Parkway (MD 410)/Ellin Road (evening peak hour); and
- 85<sup>th</sup> Avenue/Annapolis Road (MD 450) (evening peak hour)

*One Largo Metro*

- Lottsford Road/North Harry S. Truman Drive (morning and evening peak hours);
- Lottsford Road/Arena Drive (evening peak hour); and
- Lottsford Road/Landover Road (evening peak hour)

*Parklawn Building*

- Twinbrook Parkway/Veirs Mill Road (MD 586) (evening peak hour); and
- Twinbrook Parkway/Rockville Pike (MD 355) (evening peak hour)

*University Town Center*

- East-West Highway (MD 410)/Belcrest Road (morning and evening peak hours); and
- Belcrest Road/Toledo Road (evening peak hour)

It should be noted that several of the intersections analyzed are expected to operate at an unacceptable LOS either with or without the proposed action.

**ES4. Conclusion**

GSA is proposing to consolidate the HHS in Suburban Maryland, with an employee move-in date of 2014. Five locations are being considered for the consolidation. A select number of intersections were studied at each of the proposed locations to provide a basic understanding of potential traffic impacts the proposed action may have on the surrounding area. The traffic impacts at each of the proposed sites vary based on existing unused capacity and the number of approved developments, which will add to the future traffic.

To mitigate for intersections that would operate an unacceptable LOS, GSA would require the developer/owner to coordinate with the applicable local and/or State transportation planning agencies to determine the appropriate transportation mitigation measures to mitigate the traffic impacts associated with the HHS Lease Consolidation. The developer/owner would be required to implement any necessary roadway improvements and other potential transportation mitigation measures.

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## **1. Introduction and Scope of Investigation**

GSA is proposing to lease space to collocate four of HHS's current leased locations in Suburban Maryland into one leased location to improve functional efficiency. GSA would enter into a lease agreement for up to 935,401 rsf of office space, which will yield approximately 784,982 square feet (SF) of useable area and house approximately 2,900 federal employees. The building must be within three (3) miles driving distance of a Metrorail station. For sites located over one mile from a metro station, the developer must provide a shuttle service.

Currently, HHS has several leases throughout Suburban Maryland, resulting in operational inefficiencies. The majority of these employees are located at the Parklawn Building located at 5600 Fishers Lane in Rockville, Maryland.

Five locations are being evaluated for the lease consolidation of HHS. Two of the locations are located within Montgomery County and three are located within Prince George's County. Both Montgomery and Prince George's County require Traffic Impact Studies be prepared for new developments. Therefore, GSA has evaluated each of the proposed sites under Existing Conditions, Future Conditions without Proposed Action (No-Action Alternative), and Future Conditions with Proposed Action (Action Alternatives).

The locations of the proposed sites are as follows:

### Montgomery County:

- Irvington Centre at King Farm - West side of Piccard Drive at King Farm Boulevard, Rockville, Maryland 20850; and
- Parklawn Building – 5600 Fishers Lane, Rockville, Maryland 20852.

### Prince George's County:

- New Carrollton Metro - Approximately 1915 Ellin Road, New Carrollton, Maryland 20785; and
- One Largo Metro – Northwest corner of Lottsford Road and N. Harry S. Truman Drive, Upper Marlboro, Maryland 20774;
- University Town Center – Northeast corner of Toledo Road and Belcrest Road, Hyattsville, Maryland 20782.

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## **2. Existing Conditions**

This section describes the existing transportation facilities in the vicinity of each of the proposed HHS sites, including the traffic conditions and the availability of public transportation facilities.

### **2.1 Existing Public Transportation Facilities**

There are existing public transportation facilities which service each of the proposed sites. These facilities may include Metrorail, commuter rail, and/or bus routes. Below are descriptions of the Metrorail and Marc Rail (commuter rail) systems. Bus routes are described under each of the proposed site conditions.

#### **Metrorail System**

The Washington Metropolitan Area Transit Authority (WMATA) Metrorail system connects downtown Washington, D.C. to the adjoining areas in Maryland and Virginia (see Figure 1). There are five lines on the Metrorail system which are all connected at some point within Washington, D.C. The Metrorail system opens at 5:00 a.m. on weekdays and at 7:00 a.m. on weekends and closes at 12:00 a.m. Sunday-Thursday and at 3:00 a.m. Friday and Saturday. Trains arrive approximately every six minutes during the peak hours and every twelve minutes during the non-peak hours.

The Metrorail Red Line operates between Shady Grove and Glenmont in Montgomery County. This line has 27 stations and has transfer points with the Orange and Blue Lines at Metro Center and the Yellow and Green Lines at Gallery Place and Fort Totten.

The Metrorail Blue Line operates between Franconia-Springfield in Fairfax County, Virginia and Largo Town Center in Prince George's County. This line has 27 stations and has transfer points with the Red Line at Metro Center and the Yellow and Green Lines at L'Enfant Plaza. The line runs along the same path as the Yellow Line between King Street and Pentagon and runs along the same path as the Orange Line between Rosslyn and Stadium-Armory.

The Metrorail Orange Line operates between Vienna/Fairfax-GMU in Fairfax County and New Carrollton in Prince George's County. This line has 26 stations and has transfer points with the Red Line at Metro Center and the Yellow and Green Lines at L'Enfant Plaza. The line runs along the same path as the Blue Line between Rosslyn and Stadium-Armory.

The Metrorail Green Line operates between Branch Avenue and Greenbelt in Prince George's County. This line has 21 stations and has transfer points with the Red Line at Gallery Place and Fort Totten and with the Orange and Blue Lines at L'Enfant Plaza. The line runs along the same path as the Yellow Line from L'Enfant Plaza to Fort Totten.

The Metrorail Yellow Line operates between Huntington in Fairfax County and Fort Totten in Washington, D.C. This line has 17 stations and has transfer points with the Red Line at Gallery Place and the Orange and Blue Lines at L'Enfant Plaza. The line runs along the same path as the Blue Line between King Street and Pentagon, and runs along the same path as the Green Line from L'Enfant Plaza to Fort Totten.

A new Purple Line is being proposed. The Preferred Alternate would run across Montgomery and Prince George's County connecting from Bethesda to New Carrollton. The project is currently in the

preliminary engineering phase and is anticipated to complete final design in five (5) years and begin construction once funding is in place.



Figure 1. Metrorail System Map (not to scale)not to scale

**Maryland Area Regional Commuter (MARC) Rail System**

The Maryland Area Regional Commuter (MARC) Rail System is a commuter rail system that connects Washington, D.C. to the surrounding counties in Maryland and West Virginia (see Figure 2). There are three lines operated by MARC and all of the lines connect at Union Station (which also connects to the Metrorail system).

The MARC Brunswick Line operates between Brunswick, Maryland and Union Station in Washington, D.C. This line also includes extensions to Frederick, Maryland and Martinsburg, West Virginia. This line connects with the Metrorail system at Rockville, Silver Spring, and Union Station along the Red Line. The Brunswick Line operates in the eastbound direction in the morning peak hour beginning at 5:00 a.m. and in the westbound direction in the evening peak hour beginning at 1:45 p.m.

The MARC Camden Line operates between Camden Yards in Downtown Baltimore, Maryland and Union Station in Washington, D.C. This line connects with the Metrorail system at Union Station on the Red Line, and Greenbelt and College Park on the Green Line. The Camden Line operates northbound beginning at 6:42 a.m. in the morning peak hour and at 4:13 p.m. in the evening peak hour. It operates southbound beginning at 5:10 a.m. in the morning peak hour and at 3:30 p.m. in the evening peak hour.

The MARC Penn Line operates primarily between Baltimore's Penn Station and Union Station in Washington, D.C. with four additional stops up to Perryville in Harford, Maryland operating on limited service. It connects to the Metrorail system at New Carrollton along the Orange Line and Union Station along the Red Line. Service along the Penn Line begins southbound at 4:40 a.m. in the morning peak hour and at 12:40 p.m. along in the evening peak hour. In the northbound direction, service begins at 6:02 a.m. in the morning peak hour and at 12:20 p.m. in the evening peak hour.

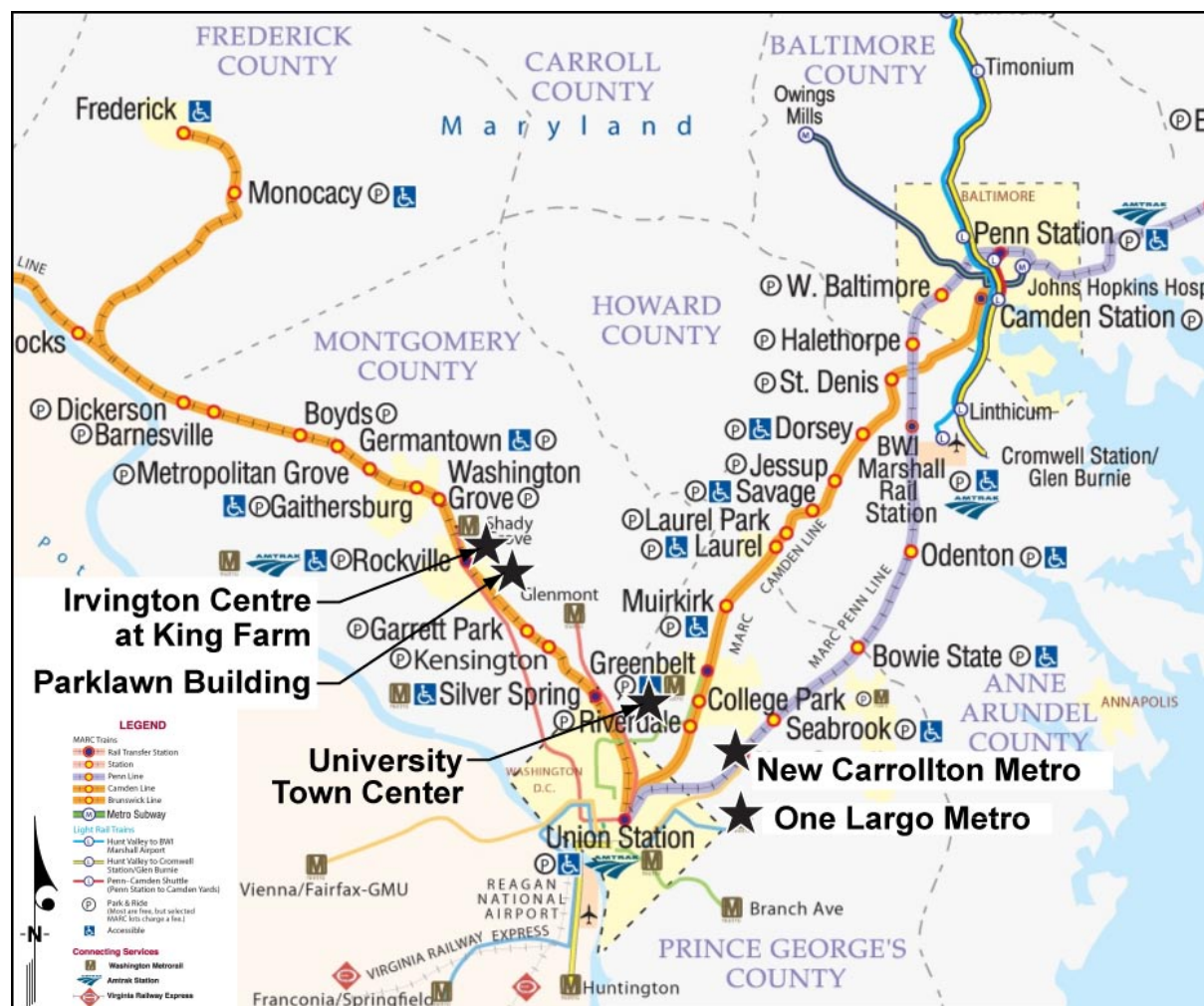


Figure 2. MARC Rail System Map (not to scale)

## 2.2 Traffic Operations Analysis

Montgomery and Prince George's counties have different requirements and thresholds for traffic assessments. Both counties require Critical Lane Analysis be performed at critical intersections to determine the Level of Service (LOS) at each location before and after a proposed action. The thresholds in Montgomery County are based on the Policy Area guidelines where the intersection is located. The thresholds in Prince George's County are based on whether the area is considered to be developed, developing, or rural. The thresholds for each site based on the County requirements are shown in Table 1 below:

**Table 1. Critical Lane Volume (CLV) Thresholds**

Site	Threshold CLV
Irvington Centre at King Farm	1,400/1,550/1,600*
New Carrollton Metro Center	1,600
One Largo Metro	1,450
Parklawn Building	1,550/1,800**
University Town Center	1,600

\* The King Farm study area has different thresholds at each intersection

\* The Parklawn Building study area falls within two different Policy Areas

Using the existing traffic volumes collected during May and June 2010 and the existing lane geometries, an intersection capacity analysis was performed for both the morning (6:00 a.m. to 9:00 a.m.) and evening peak hours (4:00 p.m. to 7:00 p.m.). Analysis was performed using the Critical Lane Analysis Technique as directed by both the Montgomery County and Prince George's County guidelines. The Critical Lane Analysis outputs a LOS, as described in the Highway Capacity Manual (HCM) as a "qualitative measure describing operational conditions within a traffic stream, and their perception by motorist and/or passengers." The HCM defines six LOS ranging from A to F, with A presenting the optimal operating conditions with minimal delays and F representing congestion.

The Critical Lane Analysis technique determines the overall operational LOS for an entire signalized intersection. Unsignalized intersections are assumed to be simple two-phase signalized intersections. The analysis examines the combination of vehicular streams with conflicting movement during a peak period. The maximum number of conflicts is termed the CLV.

In Montgomery County the CLV is considered "Acceptable" or "Unacceptable" based on the CLV threshold for the appropriate Policy Area where the intersection is located (see Table 1 for site specific thresholds).

In Prince George's County, this CLV value is then compared to a range of values, to determine the approximate LOS at an intersection (see Table 2).

**Table 2. Level of Service Ranges (for sites located in Prince George's County)**

Service Level	Description	Critical Lane Volume (CLV)
A	Free flow, very low delay	Less than 1,000
B	Stable flow, some platooning, less than 10% of cycles loaded	1,000-1,150
C	Stable flow with less than 30% of the cycles loaded. Number of vehicles stopped is significant	1,151-1,300
D	Approaching unstable flow with less than 70% of the cycles loaded. Longer delays	1,301-1,450
E	Capacity with less than 100% of cycles loaded. Long delays.	1,451-1,600
F	Unacceptably high levels of delay	Greater than 1600

Proposed developments in Montgomery County have to comply with traffic analysis and mitigation measures as stipulated in “Local Area Transportation Review and Policy Area Mobility Review Guidelines, Montgomery County Planning Department (December 2009)” (see Table 3).

**Table 3. Montgomery County Local Area Transportation Review (LATR) Intersection Congestion Standards**

Congestion(Critical Lane Volume) Standards	Policy Area
1,350	Rural East, Rural West
1,400	Damascus
1,425	Clarksburg, Germantown West, Gaithersburg City, Germantown East Montgomery Village/Airpark
1,450	Cloverly, North Potomac, Olney, Potomac, R & D Village
1,475	Aspen Hill, Fairland/White Oak, Derwood
1,500	Rockville City
1,550	North Bethesda
1,600	Bethesda/Chevy Chase, Kensington/Wheaton, Silver Spring/Takoma Park Germantown Center
1,800	Bethesda CBD, Friendship Heights CBD, Glenmont, Grosvenor, Shady Grove, Silver Spring CBD, Twinbrook, Wheaton CBD, White Flint Rockville Town Center

Proposed developments in Prince George’s County have to comply with traffic analysis and mitigation measures as stipulated in the “Guidelines for the Analysis of the Traffic Impact of Development Proposals, Prince George’s County Planning Department (September 2002).”

Table 4 presents the County’s CLV Thresholds and LOS Standards.

**Table 4. Prince George’s County Policy Standards and Technical Criteria**

Site Type	LOS Standards	CLV Threshold Values
Developed	E	1,600
Developing	D	1,450
Rural	C	1,300

### 2.2.1 Irvington Centre at King Farm (King Farm)

The King Farm site is located in a 430-acre mixed-use development that includes residential, commercial, and office buildings. New multi-story corporate office buildings, a Sheraton Hotel, and parking structures are adjacent to the King Farm site from the northeast to southeast. Other nearby commercial, retail, and office buildings are associated with Shady Grove Center to the north and Interstate 270 (I-270) to the northwest.

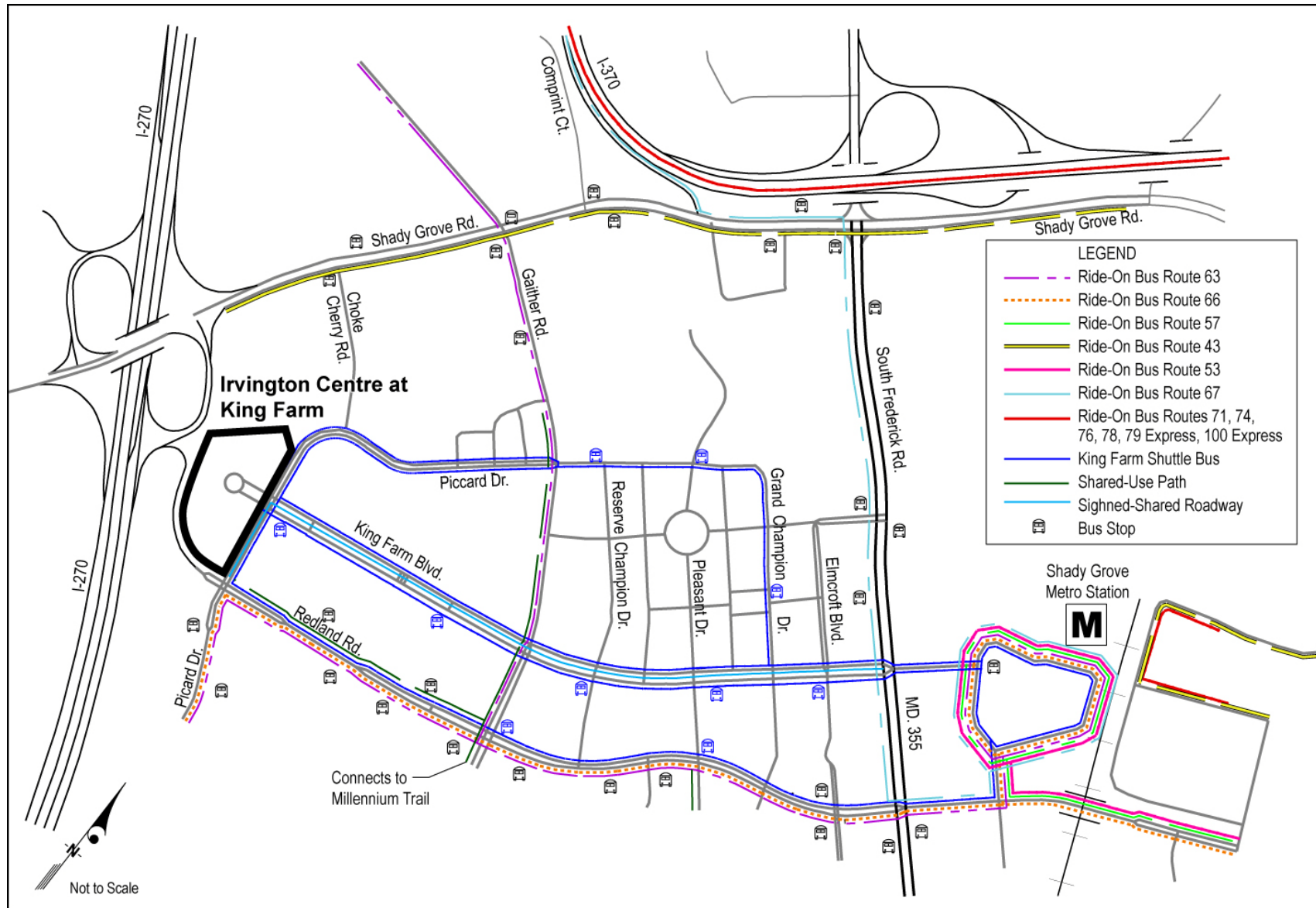
The Shady Grove Metrorail Station, which is along the Red Line, is approximately 1 mile from the proposed King Farm Site. MARC Rail Brunswick Line has a station at Rockville which is one station from Shady Grove along the Red Line. In addition, the Corridor Cities Transitway (CCT) is planned to connect the King Farm community to the Shady Grove Metrorail Station. Additionally, there is a King Farm Shuttle which operates between the Shady Grove Metrorail Station and the proposed

King Farm site, as well as, a number of Montgomery County Ride-On bus routes which service the Shady Grove Metrorail Station (see Figure 3).

The King Farm Shuttle Bus services the King Farm Development and the Shady Grove Metrorail Station. The stop closest to the proposed Irvington Centre at King Farm site is located on King Farm Boulevard, just east of Piccard Drive. The shuttle runs between 6:30 a.m. and 7:30 p.m. with Driver breaks from 10:30 a.m. to 11:10 a.m. and from 2:30 p.m. and 3:10 p.m. Additionally, there are many bus routes which operate to/from the Shady Grove Metrorail Station (see Figure 3). These routes originate/end at Traville Transit Center, Glenmont Metrorail Station, Lakeforest Transit Center, Montgomery Village Mall, Germantown Transit Center, Rockville Metrorail Station, Montgomery Village Center, Kingsview Park & Ride, Poolesville/Kentlands/ Quince Orchard High School, and Clarksburg Town Center. There are bus stops located along Piccard Drive and Redland Road. These stops are located within a quarter of a mile of the site (see Figure 3).

There are sidewalks and pedestrian crossings between the Shady Grove station and the site as well as to the surrounding residential areas. There is a signed bike route along King Farm Boulevard, Gaither Road, and Piccard Drive as well as a shared-use path along Redland Road and Gaither Road. This bike route connects to the Millennium Trail, which encircles the City of Rockville.





**Figure 3. Irvington Centre at King Farm Existing Public Transportation**

The King Farm site is located in the northwest and southwest quadrants of the King Farm Boulevard/Piccard Drive intersection with one office building and one parking garage located in each quadrant. King Farm Boulevard bisects the property. Figure 4 presents a site map of the location. The main roadways in the vicinity of the King Farm site are:

- Interstate 270 (I-270). In the vicinity of the site, I-270 is a 12-lane divided interstate highway with four express and two collector-distributor lanes in each direction separated by barrier with a posted speed of 55 miles per hour (mph). It carries approximately 230,900 vehicles per day (VPD) at Shady Grove Road.
- Interstate 370 (I-370)/Intercounty Connector (ICC). I-370 is a six-lane interstate highway which runs in an east-west direction. The ICC, currently under construction, will be a toll facility and will connect to I-370 and continue east as a six-lane expressway. It will operate as a bypass to I-495 by directly connecting I-270 with I-95. The ICC is expected to be complete in 2012.
- South Frederick Road (MD 355). MD 355 is a six-lane divided roadway which runs in a north-south direction. It has a posted speed of 40 mph. Its intersections with Shady Grove Road, Ridgemont Avenue, King Farm Boulevard, and Redland Road are signalized. It carries approximately 46,900 VPD at King Farm Boulevard.
- Shady Grove Road. This roadway runs in a north-south direction and has a posted speed limit of 40 mph. Shady Grove Road is a six-lane roadway with a grade separated interchange at I-270. Its intersections with the I-270 Ramps, Choke Cherry Road, Gaither Road, Comprint Court, Pleasant Road, and MD 355 are signalized.
- King Farm Boulevard. This is a two-lane divided roadway which runs in an east-west direction. King Farm Boulevard has a parking lane in each direction. Its intersection with Gaither Road, Pleasant Drive, and MD 355 are signalized.
- Redland Boulevard. This is a four-lane divided roadway which runs in an east-west direction. Its intersections with Piccard Drive, Gaither Road, Crestfield Drive, Pleasant Drive, and MD 355 are signalized.
- Piccard Drive. This is a two-lane roadway which runs in a north-south direction. Its intersection with Redland Road is signalized.

Turning movement counts were collected at the following intersections near the site:

1. King Farm Boulevard/Piccard Drive;
2. Shady Grove Road/Choke Cherry Road;
3. Piccard Drive/Redland Boulevard; and
4. King Farm Boulevard/South Frederick Road (MD 355).

The existing morning and evening peak hour traffic volumes at these intersections are presented in Figure 4. The raw traffic count data is located in Appendix A of this report.

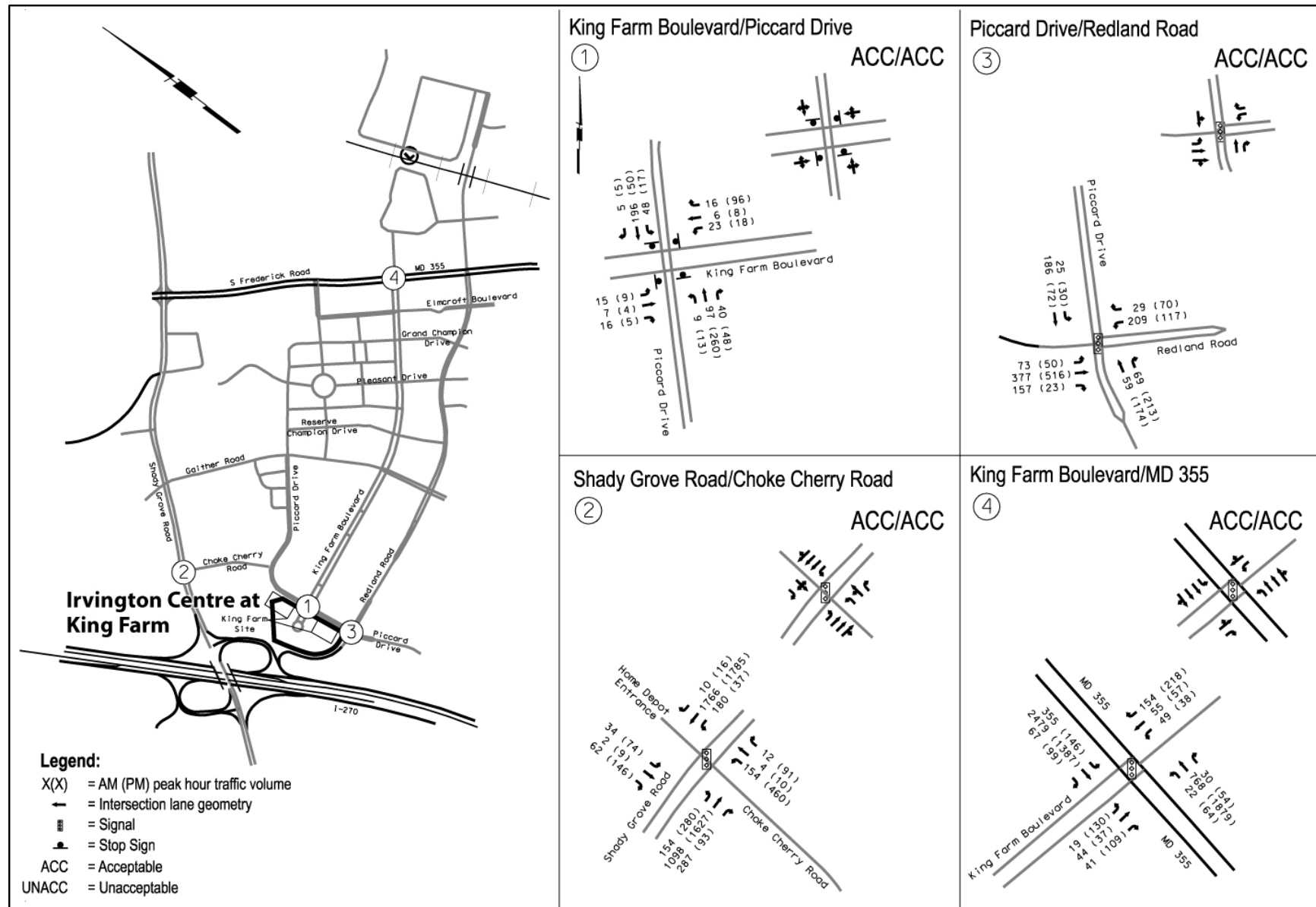


Figure 4. Irvington Centre at King Farm Site Existing Conditions (not to scale)

Capacity analysis, per the methodology mentioned above, was carried out for both the morning and evening peak hours. According to the Montgomery County Local Area Transportation Review and Policy Area Mobility Review Guidelines (M-NCPPC, 2009), the intersections in Montgomery County are considered to be operating at an acceptable LOS, at various CLV levels, dependant on the Policy Area of the intersection. The acceptable CLV's are as follows: King Farm Boulevard/Piccard Drive-1,600, Shady Grove Road/Choke Cherry Road-1,550, Piccard Drive/Redland Boulevard-1,400, and King Farm Boulevard/MD 355-1,550.

Table 5 below presents the CLV Analysis results at each of the study intersections for the morning and evening peak hours. The calculation worksheets are attached in Appendix B. As seen in Table 5, all of the study intersections operate at acceptable LOS (CLV<1,500)) as of June 2010.

**Table 5. Existing LOS at Intersections Serving Irvington Centre at King Farm Site, June 2010**

Intersection		Morning (CLV)	Evening (CLV)
Irvington Centre at King Farm Site			
1.	King Farm Boulevard/Piccard Drive	Acceptable (326)	Acceptable (472)
2.	Shady Grove Road/Choke Cherry Road	Acceptable (958)	Acceptable (1,349)
3.	Piccard Drive/Redland Boulevard	Acceptable (706)	Acceptable (607)
4.	King Farm Boulevard/South Frederick Road (MD 355)	Acceptable (1,191)	Acceptable (1,266)

### 2.2.2 New Carrollton Metro

The New Carrollton Metro site is located on a vacant parcel between Ellin Road and the Metrorail/MARC/Amtrak railroad tracks. A Potomac Electric Power Company (PEPCO) substation is adjacent to the property to the northeast, the New Carrollton Metrorail Station, parking lots, and tracks are to the east and southeast, the IRS New Carrollton Financial Services Center is to the northeast across Ellin Road, and a residential neighborhood is to the northwest.

The New Carrollton Metrorail Station, which is along the Orange Line, is approximately 1,000 feet from the proposed New Carrollton Metro site. MARC Rail Penn Line and Amtrak also have stations at New Carrollton.

There are several Metrobus and Prince George's County's The Bus routes which operate in the vicinity of the proposed site (see Figure 5). The closest bus stops are located at the New Carrollton Metrorail Station. The bus routes which service the vicinity of the site originate/end at the Cheverly Metrorail Station, Washington Business Park, Greenbelt Metrorail Station, Rhode Island Metrorail Station, Upper Marlboro, and Prince George's Community College.

There are sidewalk facilities which connect the New Carrollton Metrorail Station and the proposed site. The sidewalk on the frontage of the proposed site is approximately four-feet wide. There are additional sidewalk facilities located along Ellin Road, Harkins Road, 85<sup>th</sup> Avenue, and Annapolis

Road (MD 450) which connect to the surrounding residential areas. There are no dedicated bicycle facilities which connect to this site.

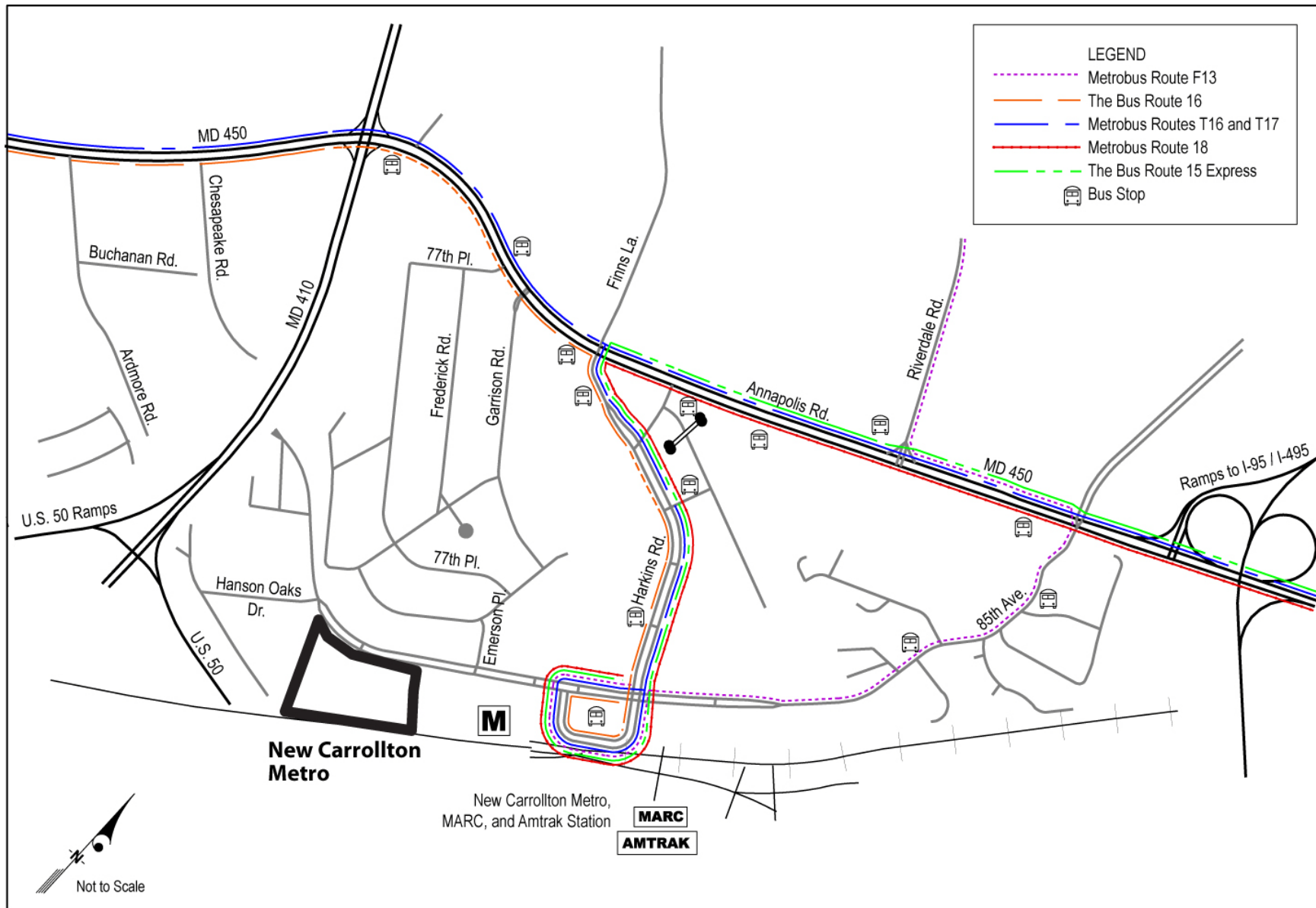
The New Carrollton Metro site is located along Ellin Road between Hanson Oaks Drive and the New Carrollton Metrorail Station. Figure 6 presents a site map of the location. The main roadways in the vicinity of the New Carrollton Metro Center site are:

- Veterans Parkway (MD 410). This is a four-lane roadway which runs in an east-west direction and has a posted speed of 45 mph. Its intersections with Ellin Road and MD 450 are signalized. Its intersection with John Hanson Highway (US 50) is grade separated. MD 410 carries approximately 20,800 VPD west of MD 450.
- Annapolis Road (MD 450). This is a six-lane roadway which runs in an east-west direction and has a posted speed of 35 mph. Its intersections with MD 410, Harkins Road, Riverdale Road, and 85<sup>th</sup> Avenue are signalized. It carries approximately 37,000 VPD west of MD 410.
- Ellin Road/85<sup>th</sup> Avenue. This is a four-lane roadway named Ellin Road from MD 410 to just north of Harkins Road where it becomes a two-lane roadway named 85<sup>th</sup> Avenue. It runs in a north-south direction and has a posted speed of 30 mph. Its intersections with MD 410, Harkins Road, and MD 450 are signalized.
- Harkins Road. This is a four lane divided roadway which runs in a north-south direction between MD 450 and Ellin Road. Its intersections with MD 450, W Lanham Drive, and Ellin Road are signalized.

Turning movement counts were collected at the following intersections near the site:

1. Veterans Parkway (MD 410)/Ellin Road;
2. Ellin Road/Harkins Road; and
3. 85<sup>th</sup> Avenue/Annapolis Road (MD 450).

The existing morning and evening peak hour traffic volumes at these intersections are presented in Figure 6. The raw traffic count data is located in Appendix A of this report.



**Figure 5. New Carrollton Metro Existing Public Transportation**

Capacity analysis, per the methodology mentioned above, was carried out for both the morning and evening peak hours. According to the Prince George's County Guidelines for the Analysis of the Traffic Impact of Development Proposals (M-NCPPC, 2002), intersections in Prince George's County with a CLV of 1,600 (LOS E) or lower are considered to be acceptable in developed areas.

Table 6 below presents the CLV Analysis results at each of the study intersections for the morning and evening peak hours. The calculation worksheets are attached in Appendix B. As can be seen in Table 6, all of the study intersections operate at acceptable LOS (CLV<1,600) as of June 2010.

**Table 6. Existing LOS at Intersections Serving New Carrollton Metro Center Site, June 2010**

Intersection		Morning LOS (CLV)	Evening LOS (CLV)
New Carrollton Metro Center Site			
1.	Veterans Parkway (MD 410)/Ellin Road	C (1,178)	B (1,121)
2.	Ellin Road/Harkins Road	A (525)	A (738)
3.	85 <sup>th</sup> Avenue/Annapolis Road (MD 450)	B (1,102)	E (1,476)

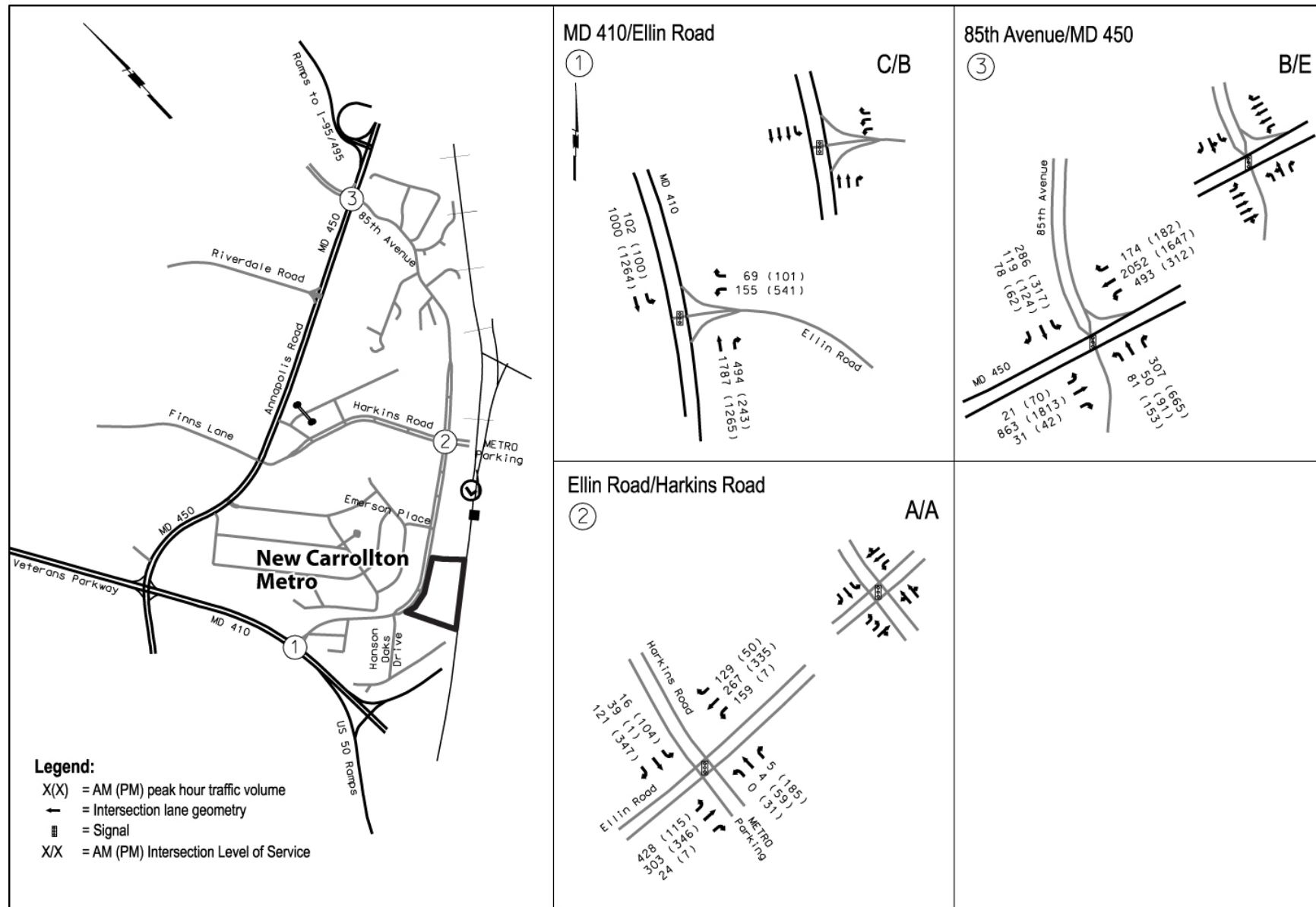


Figure 6. New Carrollton Metro Site Existing Conditions (not to scale)

### **2.2.3 One Largo Metro**

The One Largo Metro site is located on a vacant parcel north of N. Harry S. Truman Drive west of Lottsford Road. The Largo Metrorail Station and parking facility are immediately to the west, the US Business Interiors (USBI) building, townhouses, and apartments are to the south and east across N. Harry S. Truman Drive and Lottsford Road, and a vacant area lies to the north across Grand Boulevard. Large shopping centers are located to the northwest beyond the Largo Metrorail Station and to the south/southeast across Largo Avenue.

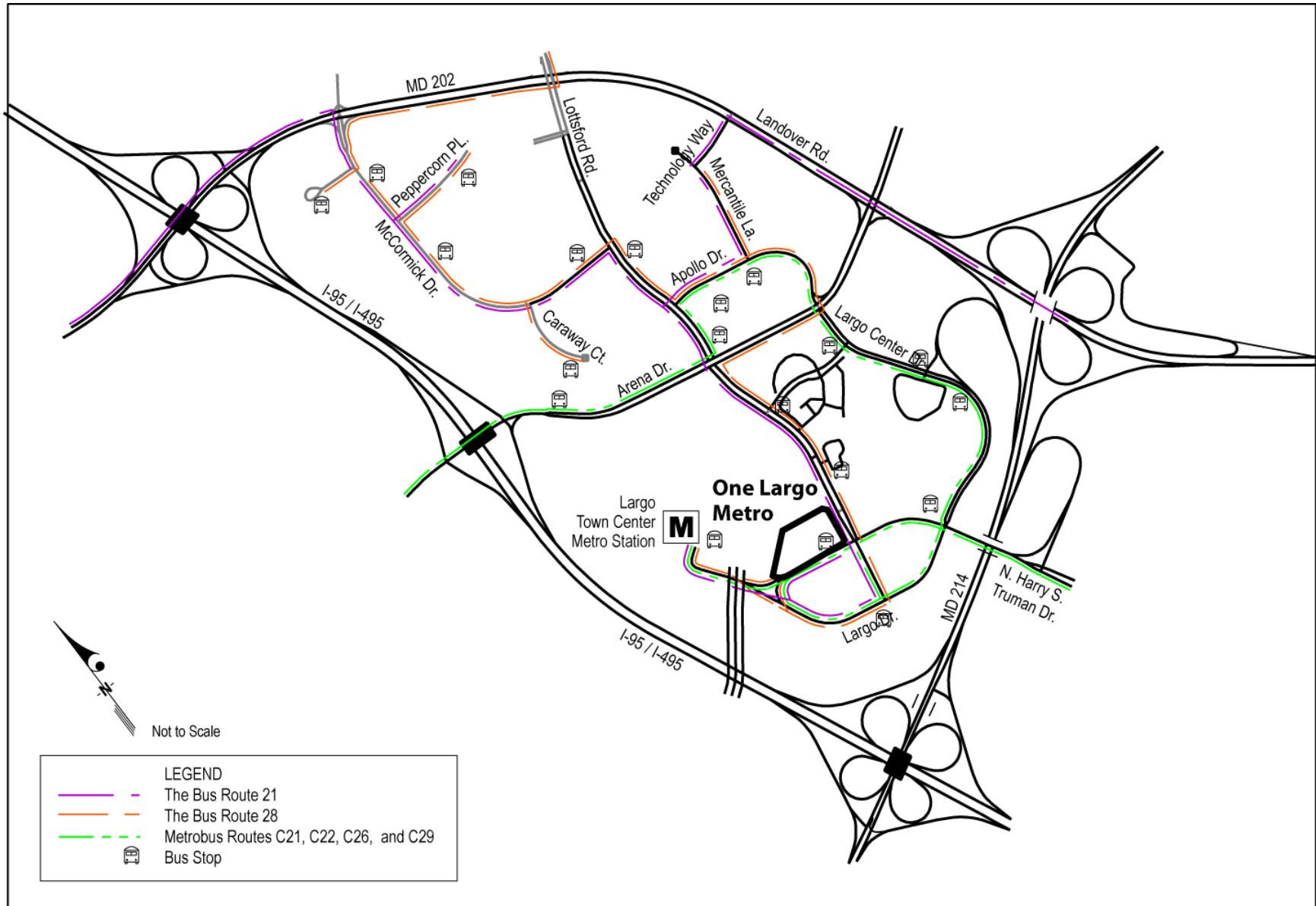
The Largo Town Center Metrorail Station, which is along the Blue Line, is approximately 500 feet from the One Largo Metro site.

There are several bus routes that service the proposed site, including buses operated by Metrobus and Prince George's County "The Bus" (see Figure 7). There are bus stops located at the Largo Town Center Metrorail Station as well as along N. Harry S. Truman Drive and Lottsford Road adjacent to the One Largo Metro site. The bus routes which service the site also service Bowie, Six Flags, Kettering, Prince George's Community College, Addison Road Metrorail Station, New Carrollton Metrorail Station, Upper Marlboro, and the Inglewood Business Park.

There are proposed sidewalk facilities which will connect the Station with the proposed site. There are also sidewalks along Lottsford Road, Arena Drive, and N. Harry S. Truman Drive in the vicinity of the site. There are no dedicated bicycle facilities which connect with this site.

The One Largo Metro site is located in the northwest corner of the intersection of Lottsford Road and N. Harry S. Truman Drive. Figure 8 presents a site map of the location. The main roadways in the vicinity of the Largo Town Center site are:

- Interstate 95/495 (I-95/495). I-95/495 is an eight-lane freeway which runs in a north-south direction in the vicinity of the site and has a posted speed limit of 55 mph. In the vicinity of the site it has interchanges with Central Avenue (MD 214), Arena Drive, and Landover Road (MD 202). It carries approximately 210,000 VPD at MD 202.
- Landover Road (MD 202). In the vicinity of the site this roadway is six-lanes divided and runs in a north-south direction. The posted speed limit is 50 mph and it carries approximately 54,700 VPD south of Arena Drive. Its intersections with McCormick Drive, Lottsford Road, Technology Way, and Arena Drive/Lake Arbor Way are signalized. Its intersections with I-95/495 and MD 214 are grade separated.
- Arena Drive: The six-lane divided roadway runs in an east-west direction and has a posted speed of 35 mph. The roadway is four lanes in the vicinity of the I-95/495 interchange. Its intersections with the I-95/495 ramps, entrances to the Boulevard at the Capital Center shopping center, Lottsford Road, Largo Center Drive/Apollo Drive, and MD 202 are signalized. It is grade separated from I-95/495.
- N. Harry S. Truman Drive. This roadway is a one-way roadway with 3 through lanes from Largo Drive (south) to Largo Drive (north). To the north and south of Largo Drive it is a two-way roadway. It runs in a north-south direction and its intersections with Lottsford Road and Largo Drive (south) are signalized. Its intersection with MD 214 is grade separated.



**Figure 7. One Largo Metro Existing Public Transportation**

- Lottsford Road. This six-lane divided roadway runs in a north-south direction and has a posted speed of 40 mph. Its intersection with Landover Road, Arena Drive, Grand Boulevard, N. Harry S. Truman Drive, and W Largo Drive are signalized.
- Central Avenue. This six-lane divided roadway runs in an east-west direction and has a posted speed of 40 mph. It carries approximately 76,500 VPD west of N. Harry S. Truman Drive. Its intersections with I-95/495, N. Harry S. Truman Drive, and MD 202 are grade separated.

Turning movement counts were collected at the following intersections near the site:

1. Lottsford Road/N. Harry S. Truman Drive;
2. Lottsford Road/Arena Drive
3. Lottsford Road/McCormick Drive;
4. Lottsford Road/Landover Road (MD 202); and
5. Arena Drive/Lake Arbor Way/Landover Road (MD 202).


The existing morning and evening peak hour traffic volumes at these intersections are presented in Figure 8. The raw traffic count data is located in Appendix A of this report. For the analysis, the counts at Lottsford Road/N. Harry S. Truman Drive were taken after school had been let out for the summer and were therefore increased by factors given in the Prince George's County Guidelines for the Analysis of the Traffic Impact of Development Proposals (M-NCPPC, 2002).

Capacity analysis, per the methodology mentioned above, was carried out for both the morning and evening peak hours. According to the Prince George's County Guidelines for the Analysis of the Traffic Impact of Development Proposals (M-NCPPC, 2002), intersections in Prince George's County with a CLV of 1,450 (LOS D) or lower are considered to be acceptable in developing areas.

Table 7 below presents the CLV Analysis results at each of the study intersections for the morning and evening peak hours. The calculation worksheets are attached in Appendix B. As can be seen in Table 7, all of the study intersections as of June 2010 currently operate at an acceptable LOS.

**Table 7. Existing LOS at Intersections Serving One Largo Metro Site, June 2010**

Intersection		Morning LOS (CLV)	Evening LOS (CLV)
One Largo Metro Site			
1.	Lottsford Road/N. Harry S. Truman Drive	A (738)	A (660)
2.	Lottsford Road/Arena Drive	A (632)	A (828)
3.	Lottsford Road/McCormick Drive	A (414)	A (465)
4.	Lottsford Road/Landover Road (MD 202)	C (1,263)	<b>D(1,340)</b>
5.	Arena Drive/Lake Arbor Way/Landover Road (MD 202)	B (1,091)	B (1,148)

 depicts intersection that operate at an unacceptable LOS (CLV>1,450).

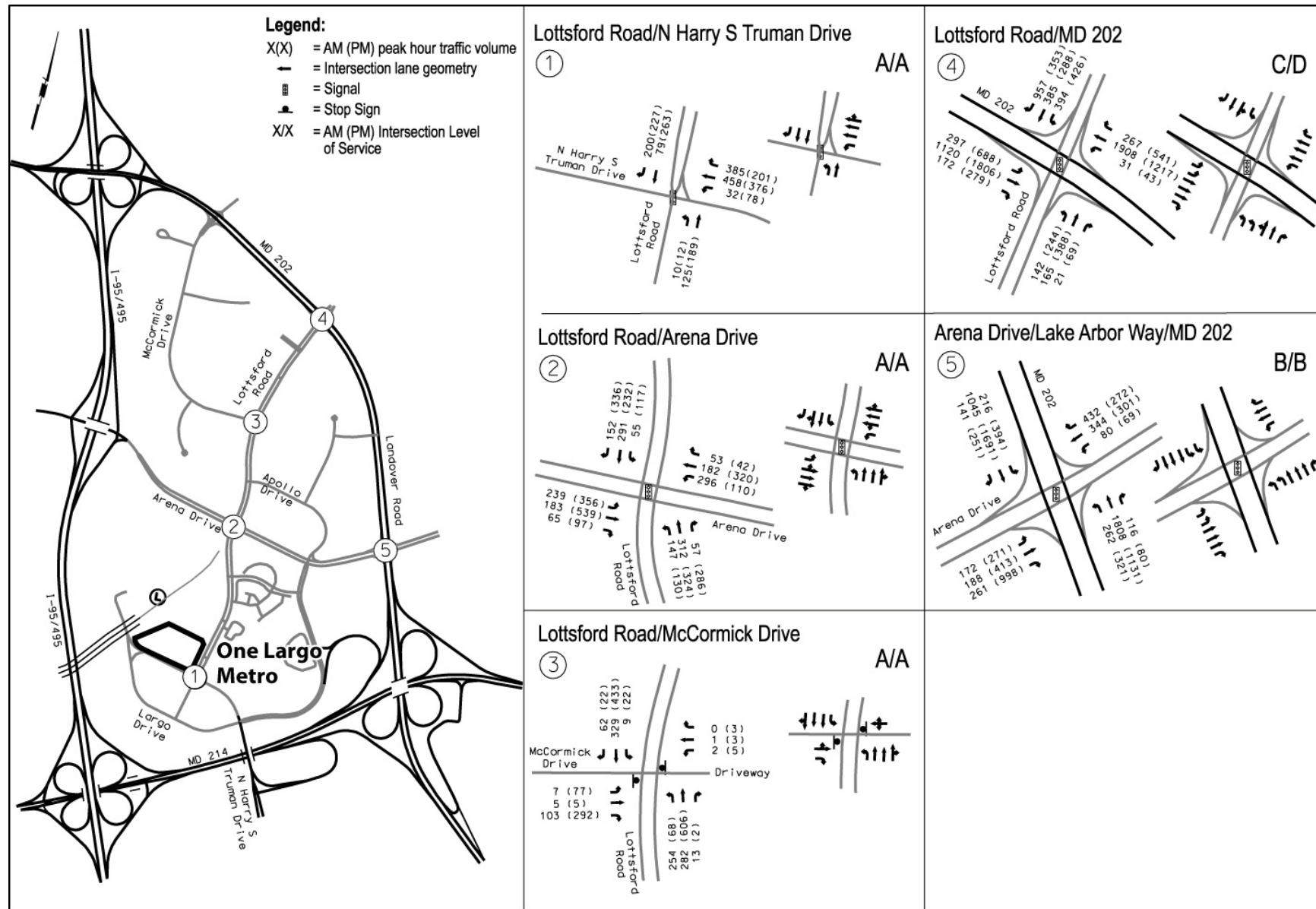


Figure 8. One Largo Metro Site Existing Conditions (not to scale)

### 2.2.4 Parklawn Building

The Parklawn Building site currently houses the majority of the HHS employees of the lease consolidation, located at 5600 Fishers Lane in Rockville, Maryland. This location is extensively developed with multi-story commercial, retail, and office buildings and parking structures. New construction is underway to the north across Fishers Lane. The Parklawn Cemetery is located to the northeast and wooded areas associated with Rock Creek Regional Park and Rock Creek extend from the north/northeast to the southeast.

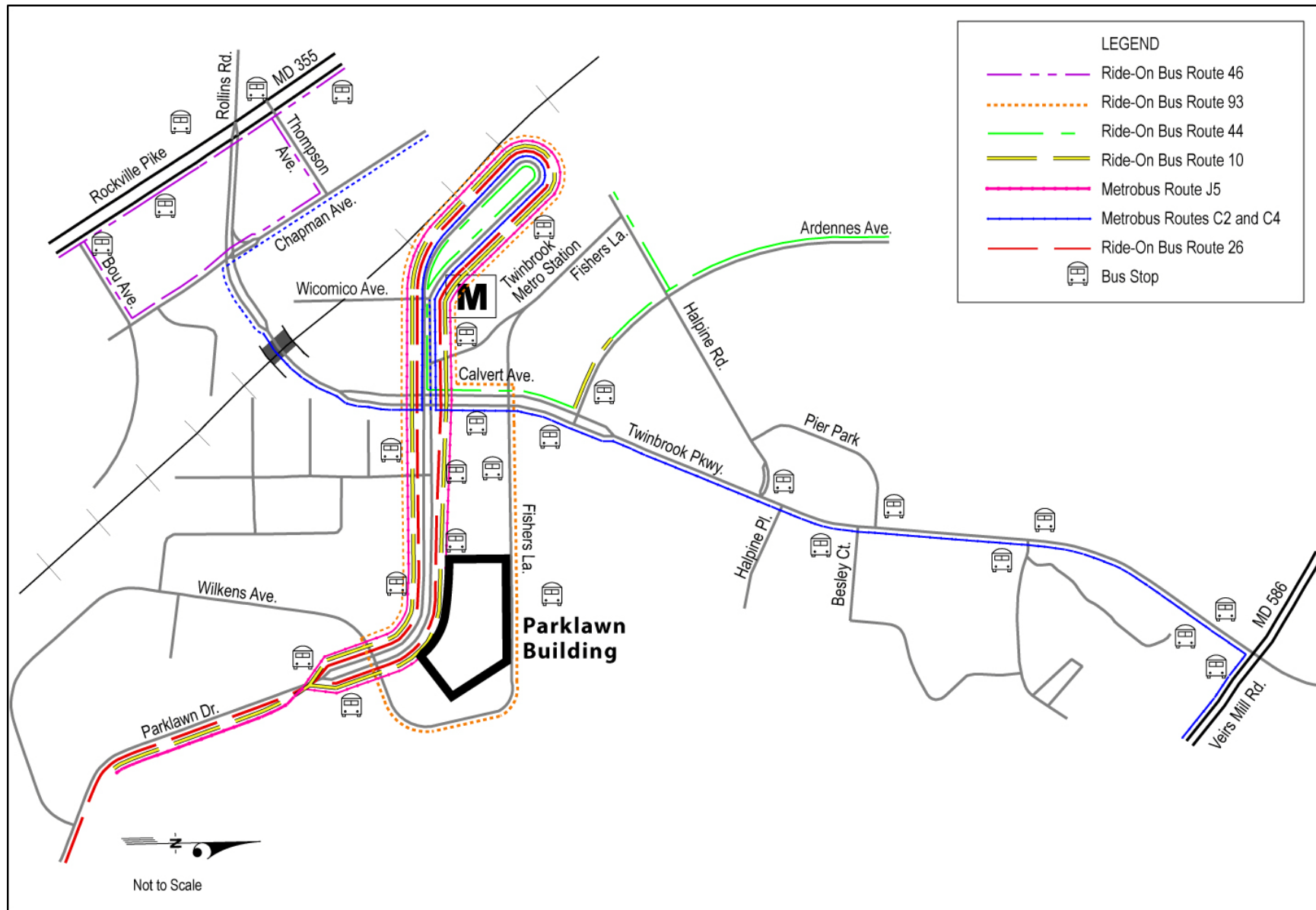
The Twinbrook Metrorail Station, which is along the Red Line, is approximately 2,300 feet from the entrance to the Parklawn Building site. MARC Rail Brunswick has a station at Rockville which is one station from Twinbrook along the Red Line.

Several bus routes operated by Metrobus and Montgomery County Ride-On service the Parklawn Building (see Figure 9). The Montgomery County Ride-On route 93 bus is a shuttle, which operates between the Twinbrook Metrorail Station and the Parklawn Building every 15 minutes. Additional bus routes provide service to/from Prince George's Plaza Metrorail Station, Silver Spring Metrorail Station, Hillandale Shopping Center, Montgomery Mall Transit Center, Glenmont Shopping Center, Rockville Metrorail Station, Rockville Regional Transit Center, Medical Center Metrorail Station, and Shady Grove Metrorail Station. There are bus stops located on both Parklawn Drive and Fishers Lane adjacent to the Parklawn Building.

There is sidewalk and pedestrian crossings along the walking route from the Twinbrook Metrorail Station to the Parklawn Building. Also, there are sidewalks along Twinbrook Parkway, Fishers Lane, and Parklawn Drive, which connect to the surrounding residential and commercial areas. There are no dedicated bicycle facilities which connect to the site.

The Parklawn Building site is located between Fishers Lane and Parklawn Drive, just east of Twinbrook Parkway. Figure 10 presents a site location map. The main roadways in the vicinity of the Parklawn Building site are:

- Veirs Mill Road (MD 586). This is a four-lane divided roadway with a posted speed limit of 40 mph. It runs in an east-west direction. MD 586 carries approximately 47,800 VPD west of Twinbrook Parkway. Its intersections with Twinbrook Parkway and Atlantic Avenue are signalized.
- Rockville Pike (MD 355). This is a six-lane divided roadway which runs in a north-south direction and has a posted speed limit of 40 mph. MD 355 carries approximately 52,000 VPD north of Twinbrook Parkway. Its intersections with Randolph Road, Hubbard Drive, Bou Avenue, Twinbrook Parkway, and Halpine Road are signalized.
- Twinbrook Parkway. This is a four-lane roadway which widens to a six-lane roadway between Ardennes Avenue and Parklawn Drive with a posted speed limit of 30 mph. Twinbrook Parkway runs in a north-south direction with signalized intersections at Veirs Mill Road, Ardennes Avenue, Fishers Lane, Parklawn Drive, Chapman Avenue, and Rockville Pike.



**Figure 9. Parklawn Building Existing Public Transportation**

- Parklawn Drive. This is a four-lane roadway with a posted speed limit of 30 mph. Parklawn Drive generally runs in an east-west direction in the vicinity of Twinbrook Parkway. Its intersections with Twinbrook Parkway, Wilkens Avenue, Braxfield Court, and Randolph Road are signalized as well as a signalized pedestrian crossing near the Parklawn Building.

Turning movement counts were collected at the following intersections near the site:

1. Twinbrook Parkway/Veirs Mill Road (MD 586);
2. Twinbrook Parkway/Fishers Lane; and
3. Twinbrook Parkway/Rollins Avenue/Rockville Pike (MD 355).

The existing morning and evening peak hour traffic volumes at these intersections are presented in Figure 10. The raw traffic count data is located in Appendix A of this report. The majority of the HHS employees to be collocated in Suburban Maryland work at the Parklawn Building. Thus, the existing traffic count data at that site includes these HHS employees.

Capacity analysis, per the methodology mentioned above, was carried out for both the morning and evening peak hours. According to the Montgomery County Local Area Transportation Review and Policy Area Mobility Review Guidelines (M-NCPPC, 2009), the intersections in Montgomery County are considered to be operating at an acceptable LOS, at various CLV levels, dependant on the Policy Area of the intersection. In North Bethesda an acceptable CLV is 1,550 and in Twinbrook an acceptable CLV is 1,800 or less.

Table 8 below presents the CLV Analysis results at each of the study intersections for the morning and evening peak hours. The calculation worksheets are attached in Appendix B. As can be seen in Table 8, all of the study intersections operate at acceptable CLV (CLV>1,550/1,800) as of June 2010.

**Table 8. Existing LOS at Intersections Serving Parklawn Building Site, June 2010**

Intersection		Morning (CLV)	Evening (CLV)
Parklawn Building Site			
1.	Twinbrook Parkway/Veirs Mill Road (MD 586)	Acceptable (1,435)	Acceptable (1,398)
2.	Twinbrook Parkway/Fishers Lane	Acceptable (590)	Acceptable (913)
3.	Twinbrook Parkway/Rollins Avenue/Rockville Pike (MD 355)	Acceptable (996)	Acceptable (1,248)

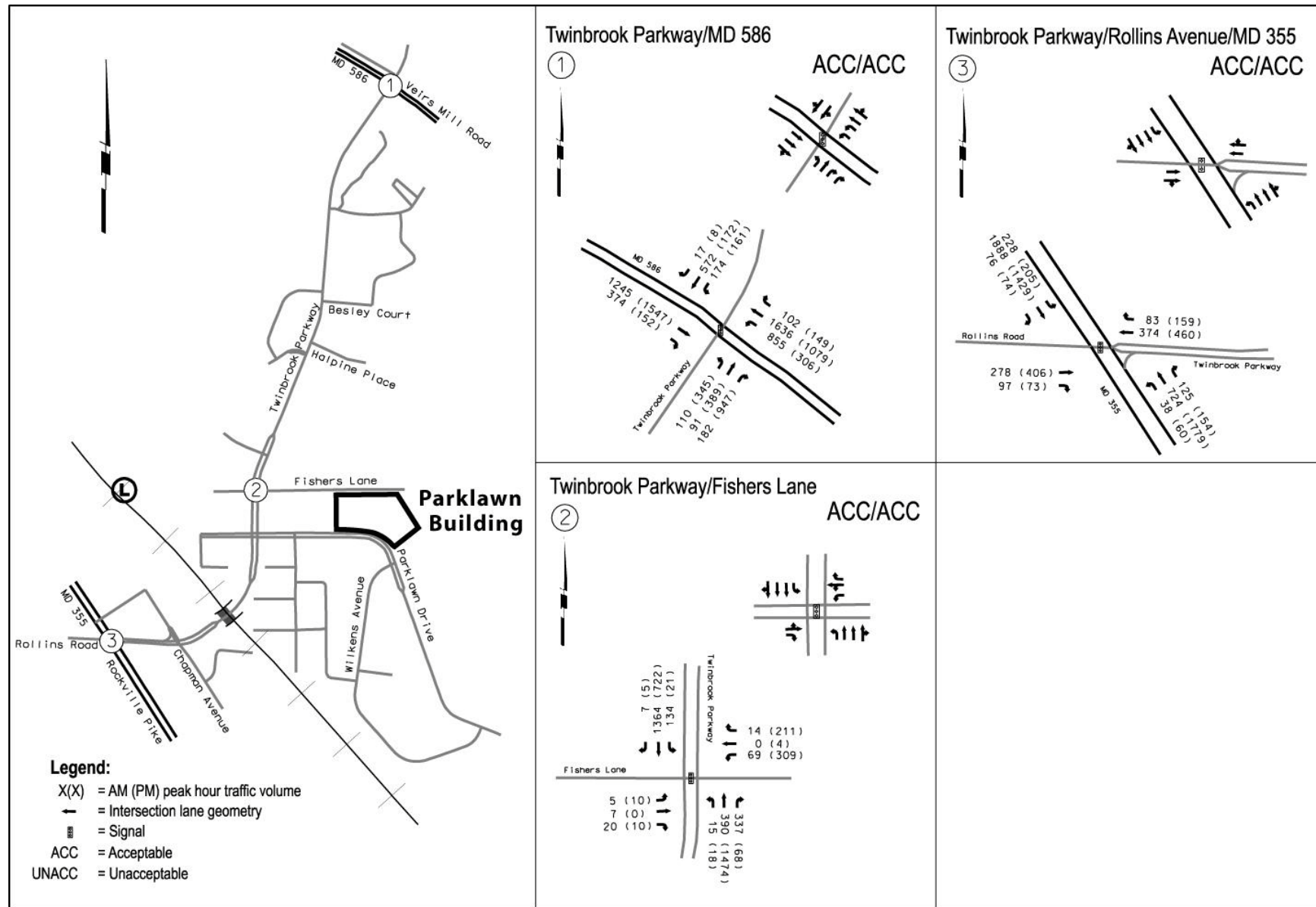


Figure 10. Parklawn Building Site Existing Conditions (N.T.S)

### 2.2.5 University Town Center

The University Town Center site is located within an existing multi-use development. Multi-story commercial, retail, and office facilities surround the parcel. Prince George's Plaza lies to the southwest, apartment buildings are to the northwest across Belcrest Road, newer retail facilities are to the south and southeast at the intersection of Route 410 and Belcrest Road, and a conservation area is to the east and northeast of the parcel.

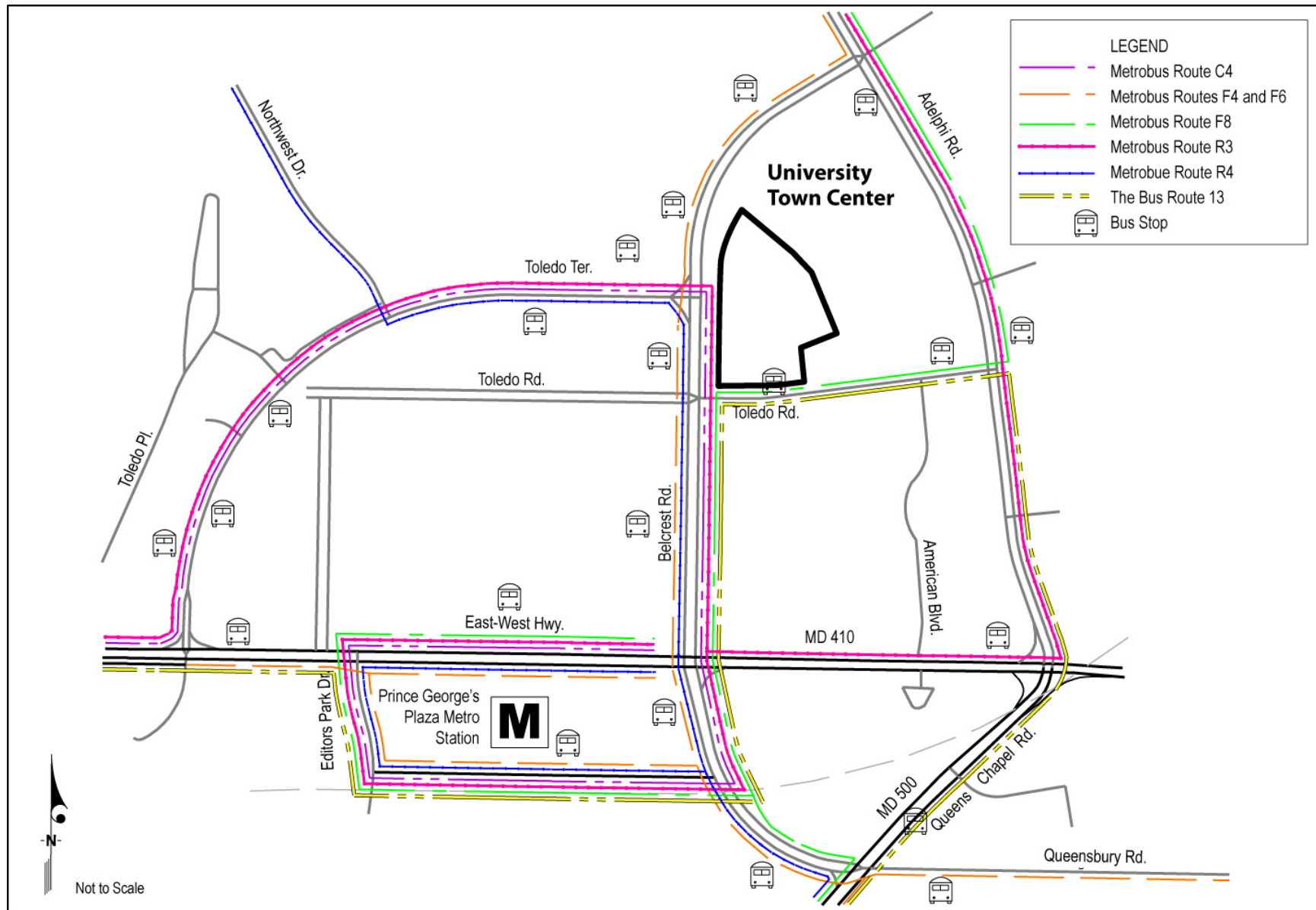
The Prince George's Plaza Metrorail Station, which is along the Green Line, is approximately 2,300 feet from the proposed University Town Center site. MARC Rail Camden Line has a station at College Park which is one station from Prince George's Plaza along the Green Line.

Several bus routes operated by Metrobus and Prince George's County's The Bus, service the proposed facility (see Figure 11). There are bus stops located on Toledo Road and Belcrest Road adjacent to the proposed site. The bus routes in the vicinity of the University Town Center site provide service to/from Twinbrook Metrorail Station, Silver Spring Metrorail Station, New Carrollton Metrorail Station, Langley Park, Cheverly, Fort Totten Metrorail Station, Greenbelt Metrorail Station, and Brookland/CUA Metrorail Station. There is also a bus route which services the West Hyattsville area.

There are sidewalk facilities and pedestrian crossings which connect the Prince George's Plaza Metrorail Station to the proposed site, as well as, a pedestrian crossing over East-West Highway (MD 410). There are additional sidewalk facilities along MD 410, Belcrest Road, and Adelphi Road which connect to the surrounding residential areas. Queens Chapel Road (MD 500), Belcrest Road, and Adelphi Road are On-Road Bicycle Routes which connect to the Anacostia Tributary Trail System.

The University Town Center site is located in the northeast corner of the intersection of Belcrest Road and Toledo Road. Figure 12 presents a site map of the location. The main roadways in the vicinity of the University Town Center Site are:

- East-West Highway (MD 410). This four-lane divided roadway runs in an east-west direction and has a posted speed of 40 mph. In the vicinity of the project site (between Adelphi Road/ MD 500 and Toledo Terrace) there is a third through-lane in the westbound direction. Its intersections with Toledo Terrace, the Prince Georges Plaza Entrance, Belcrest Road, and Adelphi Road/ MD 500 are signalized. There is also a pedestrian signal between Toledo Terrace and the Prince Georges Plaza Entrance. MD 410 carries approximately 44,000 VPD east of Adelphi Road.
- Belcrest Road. This four-lane divided roadway runs in a north-south direction with a posted speed of 35 mph. Its intersections with MD 410, Toledo Road, and Adelphi Road are signalized.
- Adelphi Road. This four-lane divided roadway runs in a north-south direction with a posted speed of 30 mph. Its intersection with MD 410, Toledo Road, and Belcrest Road are signalized.



**Figure 11. University Town Center Existing Public Transportation**

Turning movement counts were collected at the following intersections near the site:

1. East-West Highway (MD 410)/Belcrest Road;
2. Belcrest Road/Toledo Road; and
3. Belcrest Road/Adelphi Road.

The existing morning and evening peak hour traffic volumes at these intersections are presented in Figure 12. The raw traffic count data is located in Appendix A of this report. Capacity analysis, per the methodology mentioned above, was carried out for both the morning and evening peak hours. According to the Prince George's County Guidelines for the Analysis of the Traffic Impact of Development Proposals (M-NCPPC, 2002), intersections in Prince George's County with a CLV of 1,600 (LOS E) or lower are considered to be acceptable in developed areas.

Table 9 below presents the CLV Analysis results at each of the study intersections for the morning and evening peak hours. The calculation worksheets are attached in Appendix B. As can be seen in Table 9, all of the study intersections operate at acceptable LOS (CLV>1,600) as of June 2010.

**Table 9. Existing LOS at Intersections Serving University Town Center Site, June 2010**

Intersection		Morning LOS (CLV)	Evening LOS (CLV)
University Town Center Site			
1.	East-West Highway (MD 410)/Belcrest Road	B (1,015)	C (1,256)
2.	Belcrest Road/Toledo Road	A (434)	B (1,045)
3.	Belcrest Road/Adelphi Road	A (648)	A (928)

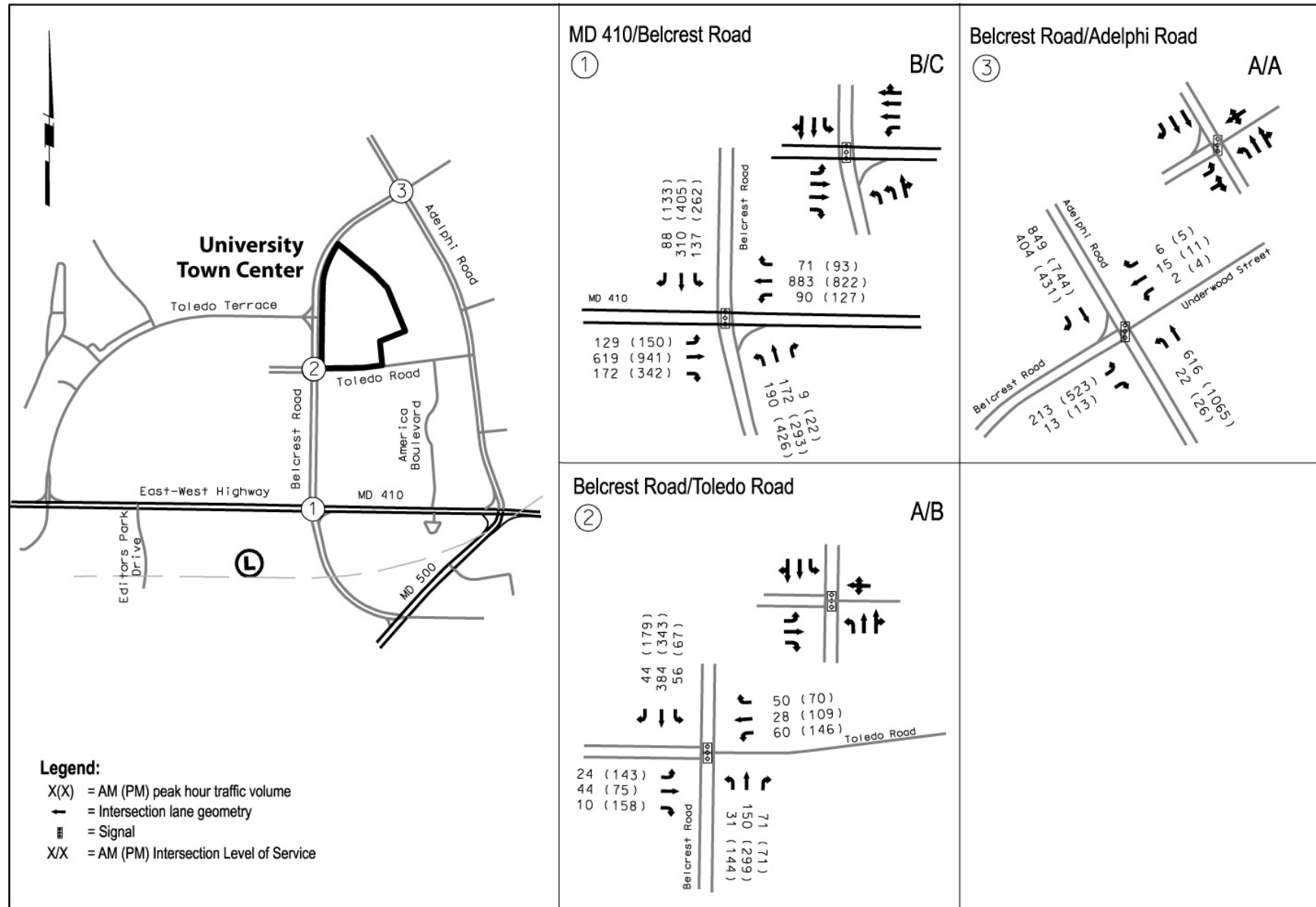


Figure 12. University Town Center Site Existing Conditions (not to scale)

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### 3. Roadway Impacts

The evaluation of the transportation impacts of the proposed HHS Lease Consolidation locations was based on the guidelines set forth by Montgomery and Prince George's counties. In particular these impacts were evaluated per the Local Area Transportation Review and Policy Area Mobility Review Guidelines (M-NCPPC, 2009) set forth by the Montgomery County Planning Department and the Prince George's County Planning Department's Guidelines for the Analysis of the Traffic Impact of Development Proposals (M-NCPPC, 2002). As the Irvington Center at King Farm is in the City of Rockville, their criteria for Level of Service was used.

#### 3.1 Future Conditions without Proposed Action (No-Action Alternative)

The Future Conditions without the Proposed Action (No-Action Alternative) analysis examines each of the proposed sites with the future anticipated volumes without taking into consideration traffic that would be generated by the proposed project. This analysis includes the existing traffic volumes, and approved un-built developments in the study areas. The No-Action Alternative analysis also takes into account any funded infrastructure improvements in the study areas. This analysis provides a baseline that allows for comparison of the potential impacts that may occur with the HHS Lease Consolidation in Suburban Maryland.

The No-Action analysis assumes HHS employees will remain in the existing Parklawn Building as well as the other leased locations in Suburban Maryland. Therefore, there will be no impact to the roadway network from HHS employees under this alternative.

Approved developments which are not yet built or occupied are included in the future traffic conditions under the No-Action Alternative. A list of approved planned developments was obtained from Montgomery County, City of Rockville, and Prince George's County resources. The developments are graphically presented in Figures 13, 15, 17, 19, and 21. Under this No-Action analysis, it is assumed that these developments will be built out by 2014. Tables 10, 12, 14, 16, and 18 present the planned developments and the associated trip generation. The number of vehicle trips generated by these developments was estimated using rates presented in the rates documented in Appendix A of the Local Area Transportation Review and Policy Area Mobility Review Guidelines (LATR & PAMR) (M-NCPPC, 2009) for the Montgomery County developments and in Figure 4 of the Guidelines for the Analysis of the Traffic Impact of Development Proposals (M-NCPPC, 2002) for the Prince George's County developments. Trip rates for any developments not covered by these two documents were estimated using rates documented in Trip Generation, 8th Edition, Institute of Transportation Engineers (ITE, 2008).

In order to determine the impact of these developments on the surrounding roadway network, these trips were distributed to the study area intersections according to the trip distribution percentages presented in Table D-4 of the LATR & PAMR for Super District 4 in Montgomery County. Trips were distributed in Prince George's County by examining the existing percentages of traffic flow in the area.

##### 3.1.1 Irvington Centre at King Farm

Approved un-built developments in the vicinity of the King Farm site are graphically presented in Figure 13. Table 10, presents the planned developments and the associated trip generation.

There were no proposed roadway improvements found for any of the study intersections.

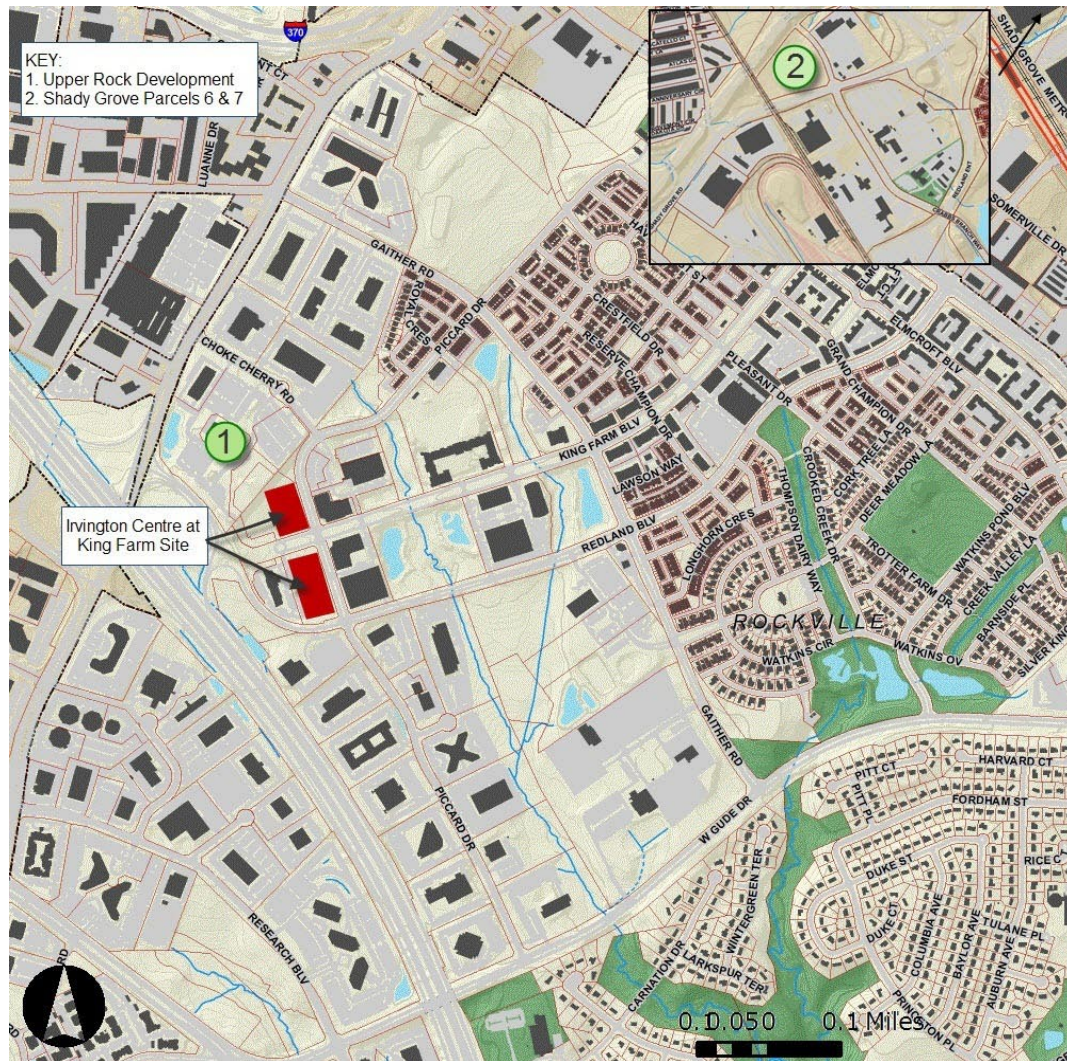


Figure 13. Irvington Centre at King Farm Approved Developments

**Table 10: Irvington Centre at King Farm Approved Planned Developments**


SR #	Land Use	Code	Size	Unit	Morning Peak			Evening Peak		
					In	Out	Total	In	Out	Total
	Irvington Centre at King Farm Site									
1	Upper Rock Development						0			
	Garden Mid-Rise Apartments		744	DU*	61	242	303	234	120	354
2	Shady Grove Parcels 6 & 7									
	Office		329,300	SF*	587	88	675	102	499	601
	Single-Family Attached		144	DU*	12	59	71	70	34	104
	Multi-Family Apartment/Condo		196	DU*	16	65	81	61	32	93
	Total Trips				615	212	827	233	565	798

\* DU = Dwelling Units, SF = Square Feet

The No-Action traffic volumes for the King Farm site were determined by combining the existing traffic volumes with the planned development volumes. These volumes are presented in Figure 14 and the LOS results are presented in Table 11 below. The CLV calculations sheets are attached in Appendix C.

**Table 11. Irvington Centre at King Farm Future Condition under the No-Action Alternative LOS Results**

Intersection		Existing		Future Condition without Proposed Action (No-Action)	
		morning (CLV)	evening (CLV)	morning (CLV)	evening (CLV)
Irvington Centre at King Farm Site					
1.	King Farm Boulevard/Piccard Drive	Acceptable (326)	Acceptable (472)	Acceptable (407)	Acceptable (628)
2.	Shady Grove Road/Choke Cherry Road	Acceptable (958)	Acceptable (1,349)	Acceptable (1,098)	Acceptable (1,517)
3.	Piccard Drive/Redland Boulevard	Acceptable (706)	Acceptable (607)	Acceptable (713)	Acceptable (611)
4.	King Farm Boulevard/South Frederick Road (MD 355)	Acceptable (1,191)	Acceptable (1,266)	Acceptable (1,232)	Acceptable (1,288)

 Depicts intersection which operate at an unacceptable LOS (CLV>1,400 for intersection 3, CLV>1,550 for intersections 2 & 4, CLV>1,600 for intersection 1)

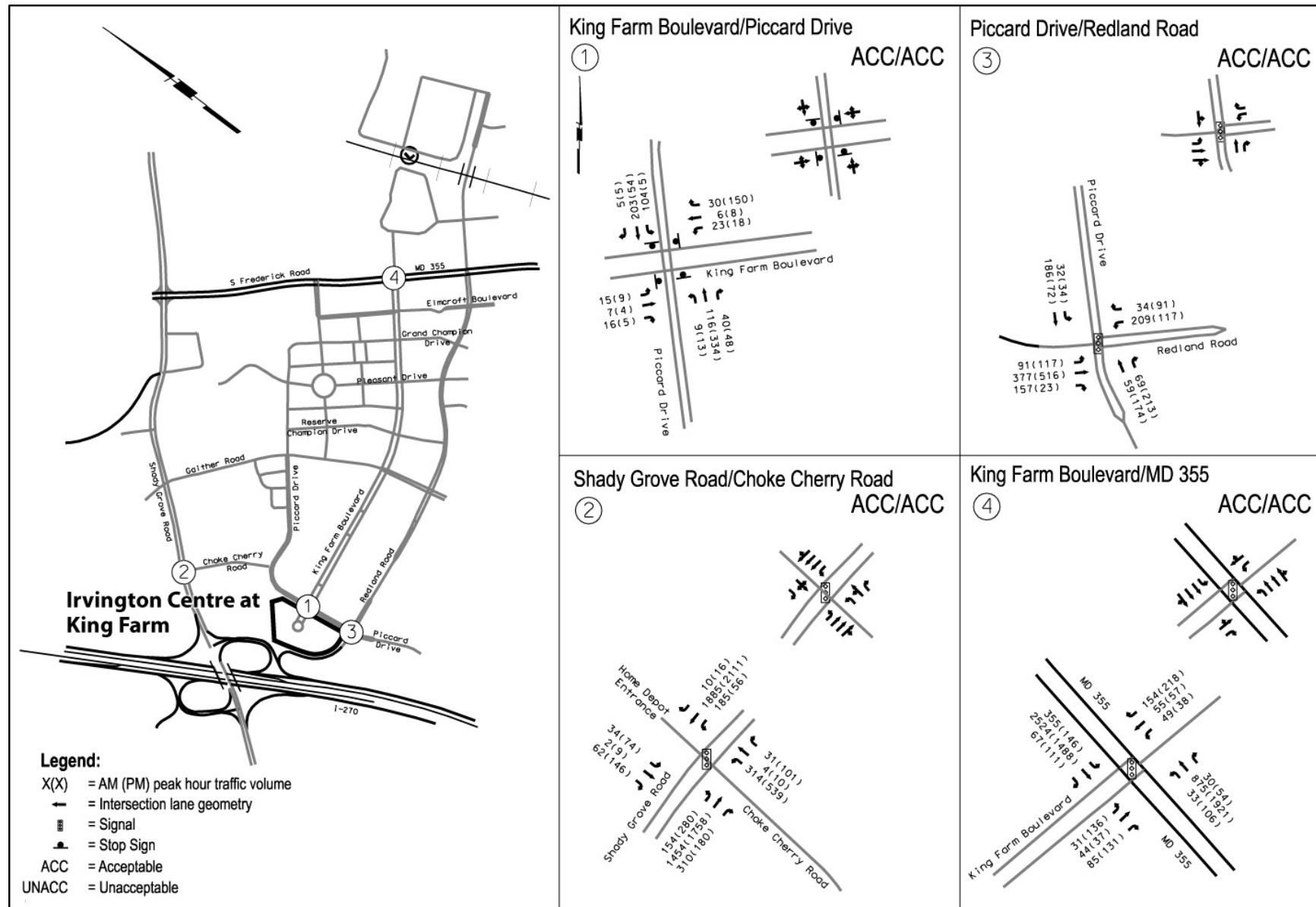


Figure 14. Irvington Centre at King Farm Future Conditions without Proposed Action (No-Action) (not to scale)

### 3.1.2 New Carrollton Metro

Approved un-built developments in the vicinity of the New Carrollton Metro site are graphically presented in Figure 15. Table 12, presents the planned developments and the associated trip generation.

There were no proposed roadway improvements found for any of the study intersections.

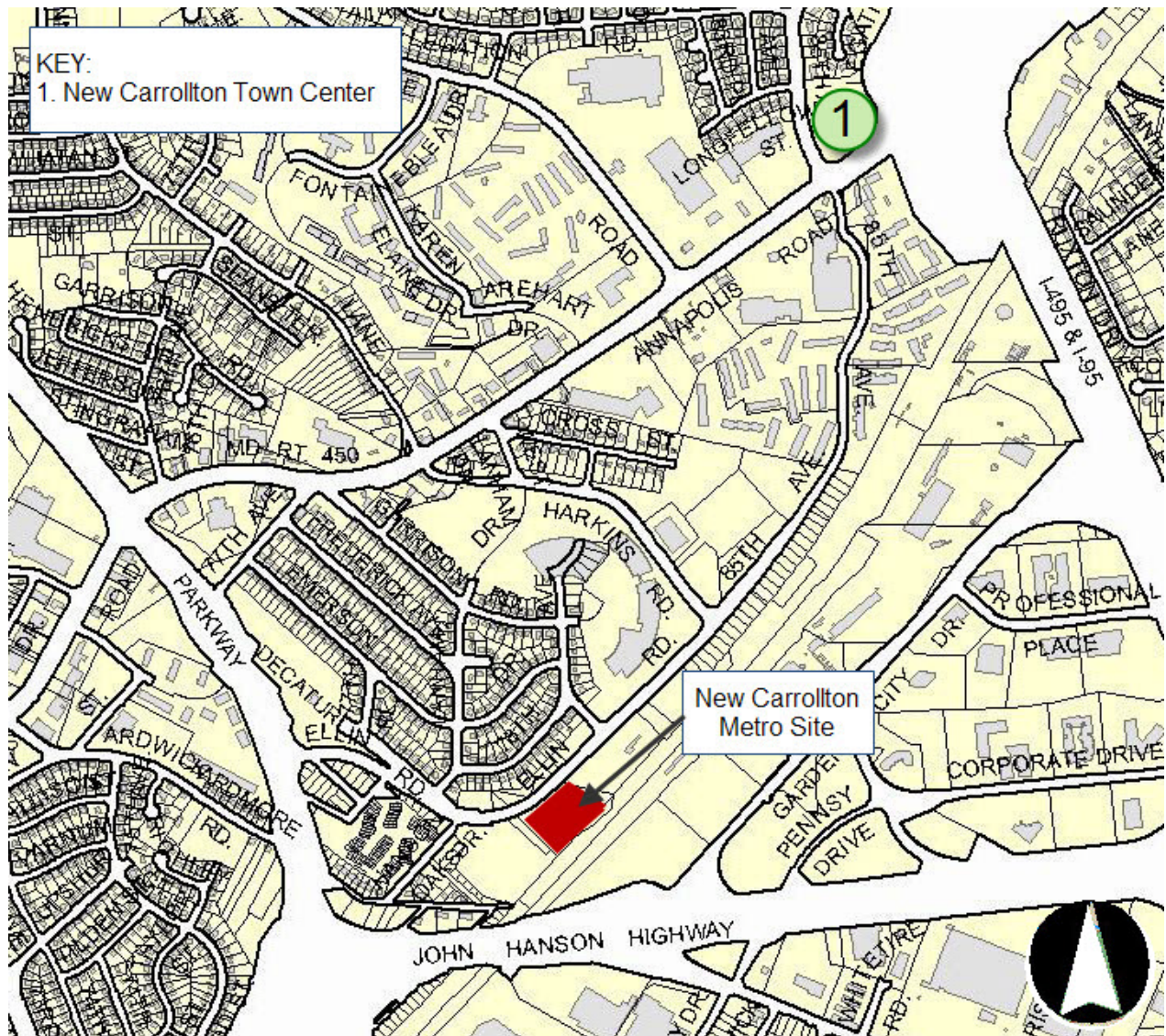


Figure 15. New Carrollton Metro Approved Developments (not to scale)

**Table 12: New Carrollton Metro Approved Planned Developments**

SR #	Land Use	Code	Size	Unit	Morning Peak			Evening Peak		
					In	Out	Total	In	Out	Total
	New Carrollton Metro Site									
1	New Carrollton Town Center									
	Office		37,246	SF*	67	8	75	11	56	67
	Residential Condominium		106	DU*	11	45	56	41	22	63
	Total Trips				78	53	131	52	78	130

\*SF = Square Feet, DU = Dwelling Units

The No-Action traffic volumes for the New Carrollton Metro site were determined by combining the existing traffic volumes with the planned development volumes. These volumes are presented in Figure 16 and the LOS results are presented in Table 13 below. The CLV calculations sheets are attached in Appendix C. All of the intersections are expected to operate at an acceptable LOS during both peak hours.

**Table 13. New Carrollton Metro Future Condition under the No-Action Alternative LOS Results**

Intersection		Existing		Future Condition without Proposed Action (No-Action)	
		Morning LOS (CLV)	evening LOS (CLV)	Morning LOS (CLV)	Evening LOS (CLV)
New Carrollton Metro Site					
1.	Veterans Parkway (MD 410)/Ellin Road	C (1,178)	B (1,121)	C (1,188)	B (1,134)
2.	Ellin Road/Harkins Road	A (525)	A (669)	A (540)	A (679)
3.	85 <sup>th</sup> Avenue/Annapolis Road (MD 450)	B (1,102)	E (1,476)	C (1,152)	E (1,513)

(Intersections considered unacceptable with CLV>1,600)

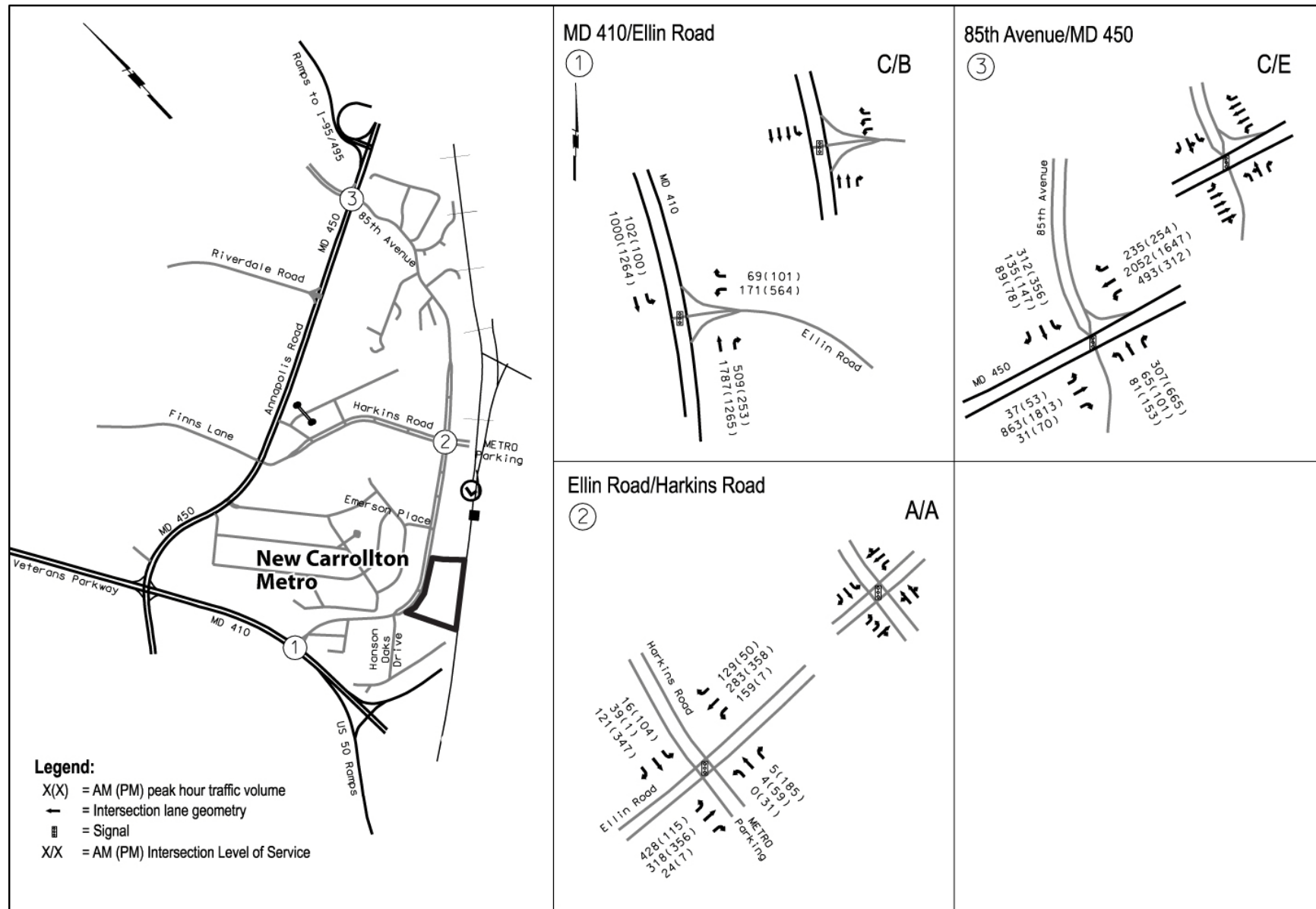


Figure 16. New Carrollton Metro Future Conditions without Proposed Action (No-Action) (not to scale)

### 3.1.3 One Largo Metro

Approved un-built developments in the vicinity of the One Largo Metro site are graphically presented in Figure 17. Table 14, presents the planned developments and the associated trip generation by 2014.

There were no proposed roadway improvements found for any of the study intersections.

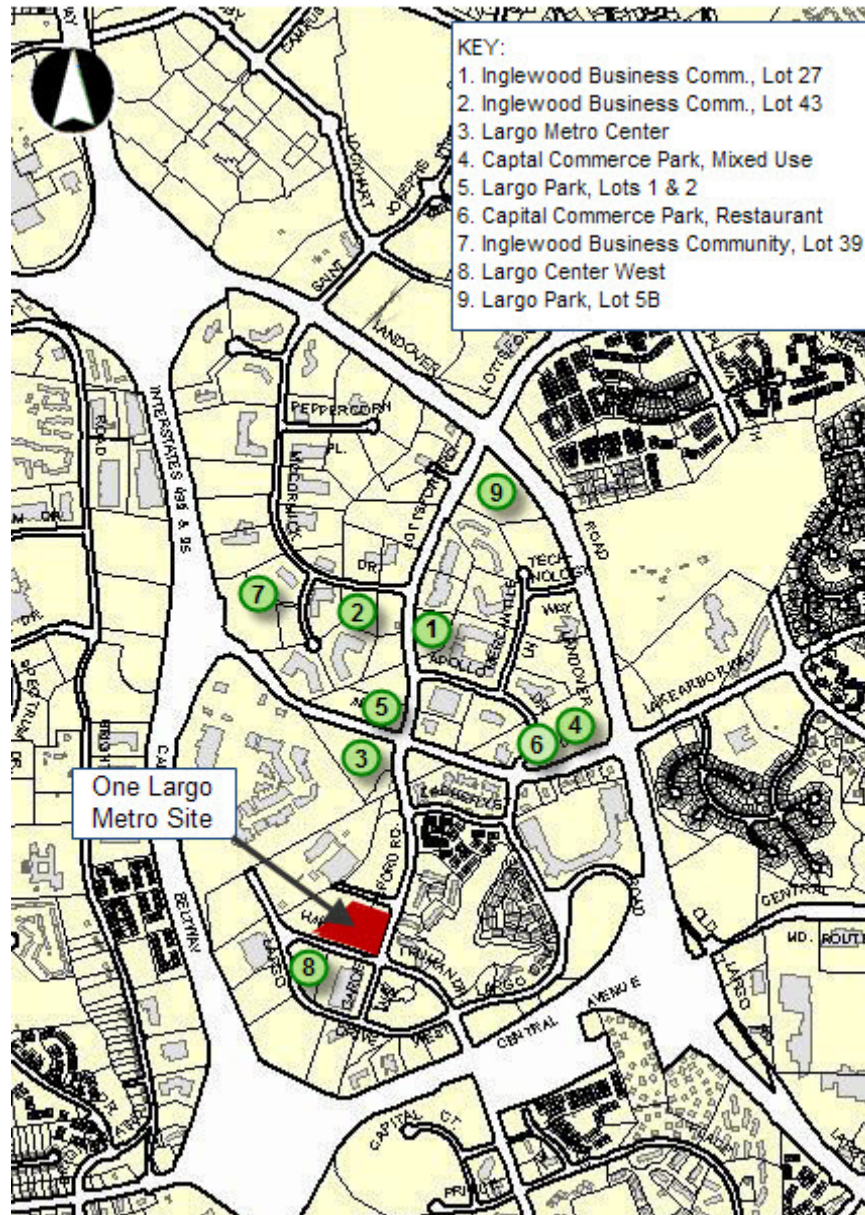


Figure 17. One Largo Metro Approved Development (not to scale)

**Table 14: One Largo Metro Approved Planned Developments**


SR #	Land Use	Code	Size	Unit	Morning Peak			Evening Peak		
					In	Out	Total	In	Out	Total
	One Largo Metro Site									
1	Inglewood Business Community									
	General Office, Lot 27		60,984	SF *	110	12	122	21	92	113
2	Inglewood Business Community									
	General Office, Lot 43		60,984	SF *	110	12	122	21	92	113
3	Largo Metro Center									
	Major Activity Center		160,000	SF *	158	101	259	86	146	232
4	Capital Commerce Park						0			0
	Mixed Use - Office, Restaurant, Retail/Hotel		134,504/159	SF*/Rooms	196	54	250	146	216	362
5	Largo Park, Lots 1 & 2						0			0
	Dwelling		318	DU*	32	134	166	124	67	191
	Mixed-Use - Office/Retail/Rest		98,621	SF*	178	20	198	35	148	183
	Total Trips				210	154	364	159	215	374
6	Capital Commerce Park									
	Restaurant		1,500	SF*	90	83	173	99	69	168
7	Inglewood Business Community, Lot 39									
	General Office		25,368	SF*	46	5	51	9	38	47
	Hotel		143,216	SF*	50	43	93	64	50	114
	Total Trips				96	48	144	73	88	161
8	Largo Center West									
	General Office		201,672	SF*	363	40	403	71	303	374
9	Largo Park, Lot 5B									
	General Office		144,000	SF*	259	29	288	50	216	266

\*SF = Square Feet, DU = Dwelling Unit

The No-Action traffic volumes for the One Largo Metro site were determined by combining the existing traffic volumes with the planned development volumes. These volumes are presented in Figure 18 and the LOS results are presented in Table 15 below. The CLV calculations sheets are attached in Appendix C.

**Table 15. One Largo Metro Future Condition under the No-Action Alternative LOS Results**

Intersection		Existing		Future Condition without Proposed Action (No-Action)	
		morning LOS (CLV)	evening LOS (CLV)	Morning LOS (CLV)	Evening LOS (CLV)
One Largo Metro Site					
1.	Lottsford Road/North Harry S. Truman Drive	A (738)	A (660)	A (738)	A (660)
2.	Lottsford Road/Arena Drive	A (632)	A (828)	A (809)	B (1,090)
3.	Lottsford Road/McCormick Drive	A (414)	A (465)	A (562)	A (509)
4.	Lottsford Road/Landover Road (MD 202)	C (1,263)	<b>D (1,340)</b>	D (1,341)	<b>E (1,459)</b>
5.	Arena Drive/Lake Arbor Way/Landover Road (MD 202)	B (1,091)	B (1,148)	C (1,188)	D (1,315)

 Depicts intersection which operate at an unacceptable LOS (CLV>1,450)

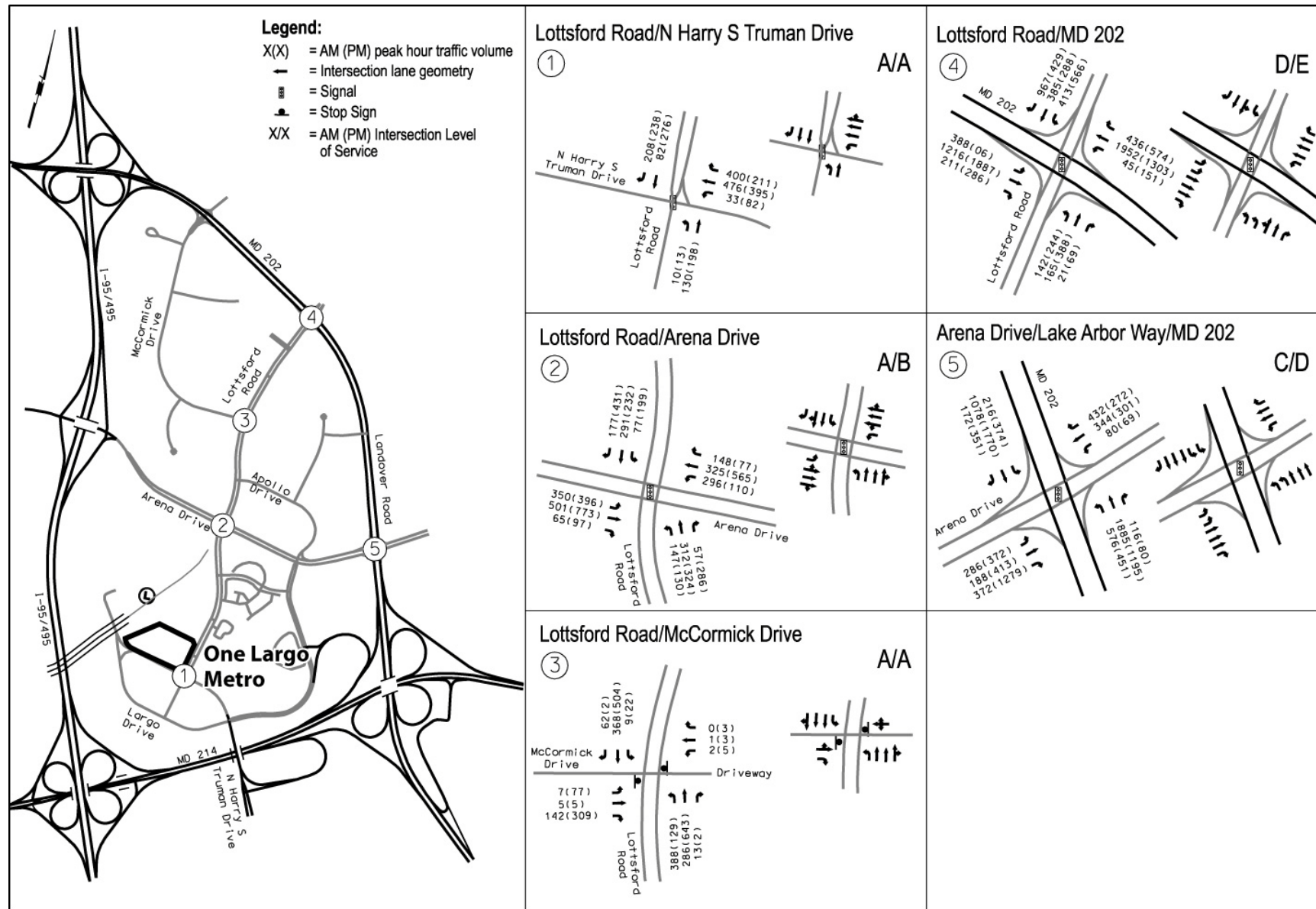
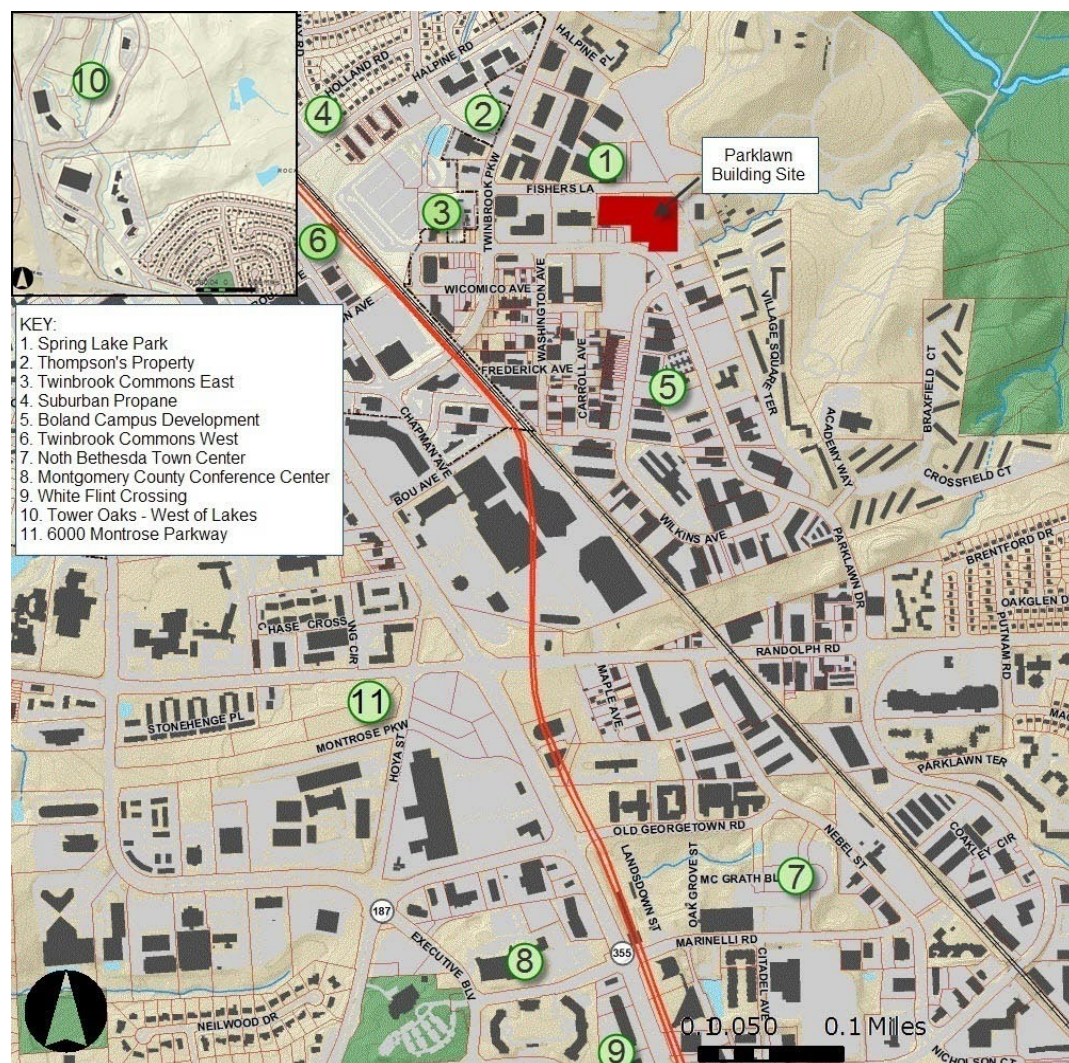


Figure 18. One Largo Metro Future Conditions without Proposed Action (No-Action) (not to scale)

### 3.1.4 Parklawn Building

Approved un-built developments in the vicinity of the Parklawn Building are graphically presented in Figure 19. Table 16, presents the planned developments and the associated trip generation.

There were no proposed roadway improvements found for any of the study intersections.



**Figure 19. Parklawn Building Approved Developments**

**Table 16: Parklawn Building Approved Planned developments**

SR #	Land Use	Code	Size	Unit	Morning Peak			Evening Peak		
					In	Out	Total	In	Out	Total
	Parklawn Building Site									
1	Spring Lake Park									
	General Office		93,000	SF*	131	19	150	26	128	154
	Research & Development Cent		98,790	SF*	114	23	137	20	111	131
	Total Trips				245	42	287	46	239	285
2	Thompson's Property									
	General Office		150,000	SF*	215	32	247	40	196	236
3	Twinbrook Commons East									
	Retail		70,000	SF*	42	39	81	168	155	323
	Garden Mid-Rise Apartments		144	DU*	12	47	59	45	23	68
	High-Rise Apartments		690	DU*	44	148	192	142	82	224
	Total Trips				98	234	332	355	260	615
4	Suburban Propane						0			0
	High-Rise Apartments		110	DU*	11	32	43	30	19	49
5	Boland Campus Development									
	General Office		69,500	SF*	96	14	110	20	100	120
6	Twinbrook Commons West									
	Retail		80,000	SF*	93	86	179	371	343	714
	General Office		325,000	SF*	290	43	333	65	316	381
	High-Rise Apartments		481	DU*	28	84	112	80	52	132
	Total Trips				411	213	624	516	711	1,227
7	North Bethesda Town Center									
	High-Rise Apartments		1,350	DU*	76	226	302	215	138	353
	General Office		1,148,000	SF*	845	126	971	213	1,042	1,255

SR #	Land Use	Code	Size	Unit	Morning Peak			Evening Peak		
					In	Out	Total	In	Out	Total
	Retail		202,037	SF*	193	178	371	854	840	1,694
	Movie Theater, Matinee		3,500	Seats	0	0	0	96	149	245
	Total Trips				1,114	530	1,644	1,378	2,169	3,547
8	MO County Conference Center									
	Hotel Rooms		225	Rooms	68	44	112	70	63	133
9	White Flint Crossing									
	Retail		173,000	SF*	153	142	295	534	492	1,026
	High Turnover Restaurants		30,000	SF*	180	166	346	114	73	187
	Garden Mid-Rise Apartments		172	DU*	14	58	72	54	28	82
	High Rise Apartments		268	DU*	22	67	89	63	40	103
	Total Trips				369	433	802	765	633	1,398
10	Tower Oaks - West of Lakes									
	Garden Mid-Rise Apartments		172	DU*	14	58	72	54	28	82
11	6000 Montrose Parkway									
	General Office		308,400	SF*	408	61	469	72	349	421


\*SF = Square Feet, DU = Dwelling Unit

The No-Action traffic volumes for the Parklawn site were obtained by combining the existing traffic volumes with the planned development volumes. These volumes are presented in Figure 20 and the LOS results are presented in Table 17 below. The CLV calculations sheets are attached in Appendix C.

The intersections of Twinbrook Parkway/Veirs Mill Road (MD 586) and Twinbrook Parkway/Rockville Pike (MD 355) during the evening peak hours are expected to operate at an unacceptable LOS.

**Table 17. Parklawn Building Future Conditions under the No-Action Alternative LOS Results**

Intersection		Existing		Future Condition without Proposed Action (No-Action)	
		morning (CLV)	evening (CLV)	morning (CLV)	evening (CLV)
Parklawn Building Site					
1.	Twinbrook Parkway/Veirs Mill Road (MD 586)	Acceptable (1,435)	Acceptable (1,398)	Acceptable (1,496)	<b>Unacceptable (1,605)</b>
2.	Twinbrook Parkway/Fishers Lane	Acceptable (590)	Acceptable (913)	Acceptable (967)	Acceptable (1,283)
3.	Twinbrook Parkway/Rollins Avenue/Rockville Pike (MD 355)	Acceptable (996)	Acceptable (1,248)	Acceptable (1,450)	<b>Unacceptable (2,265)</b>

 Depicts intersection which operate at an unacceptable LOS (CLV>1,550 at MD 586, CLV>1,800 at MD 355))

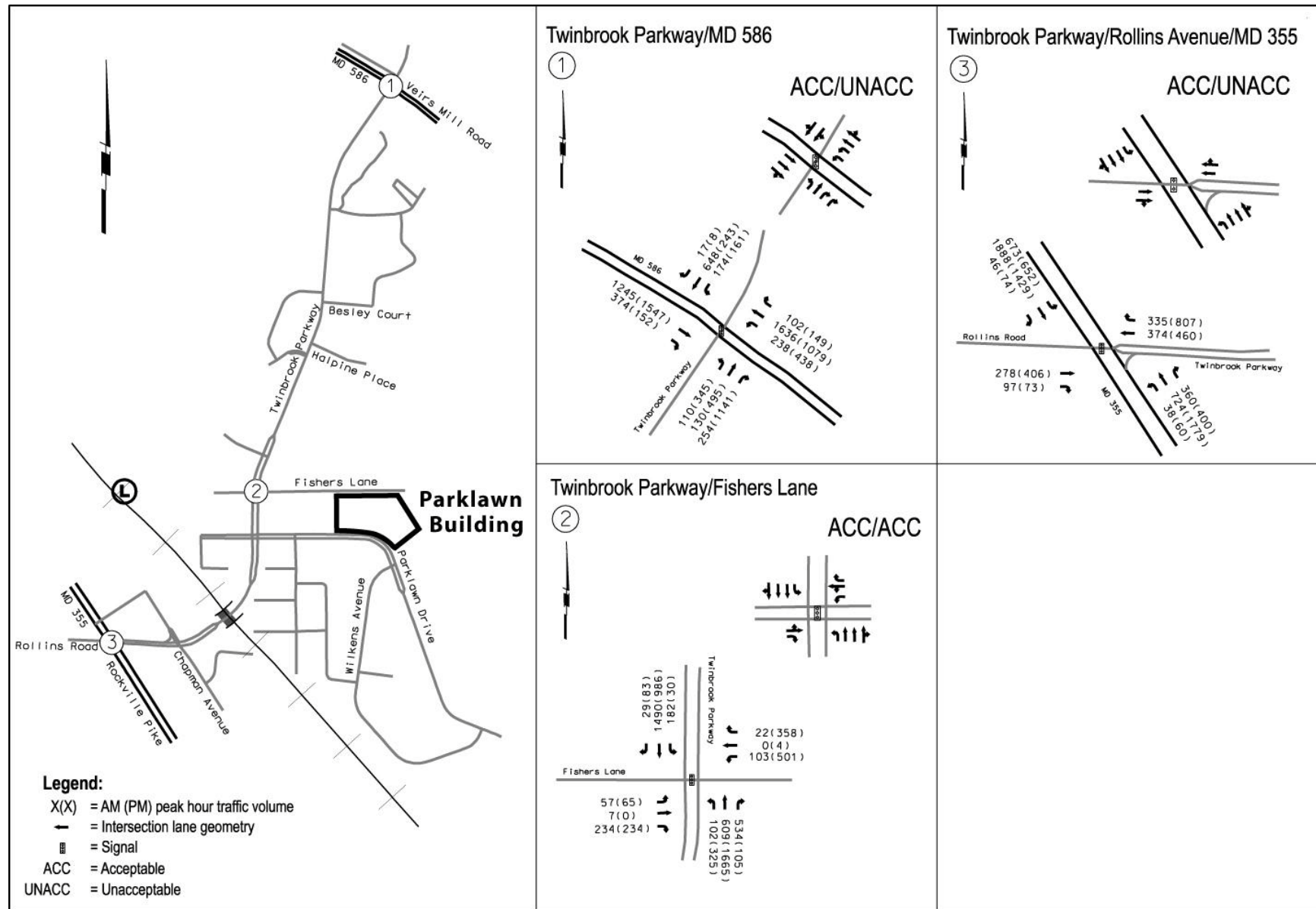


Figure 20. Parklawn Building Future Conditions without Proposed Action (No-Action) (not to scale)

### 3.1.5 University Town Center

Approved un-built developments are graphically presented in Figure 21. Table 18, presents the planned developments and the associated trip generation.

There were no proposed roadway improvements found for any of the study intersections.

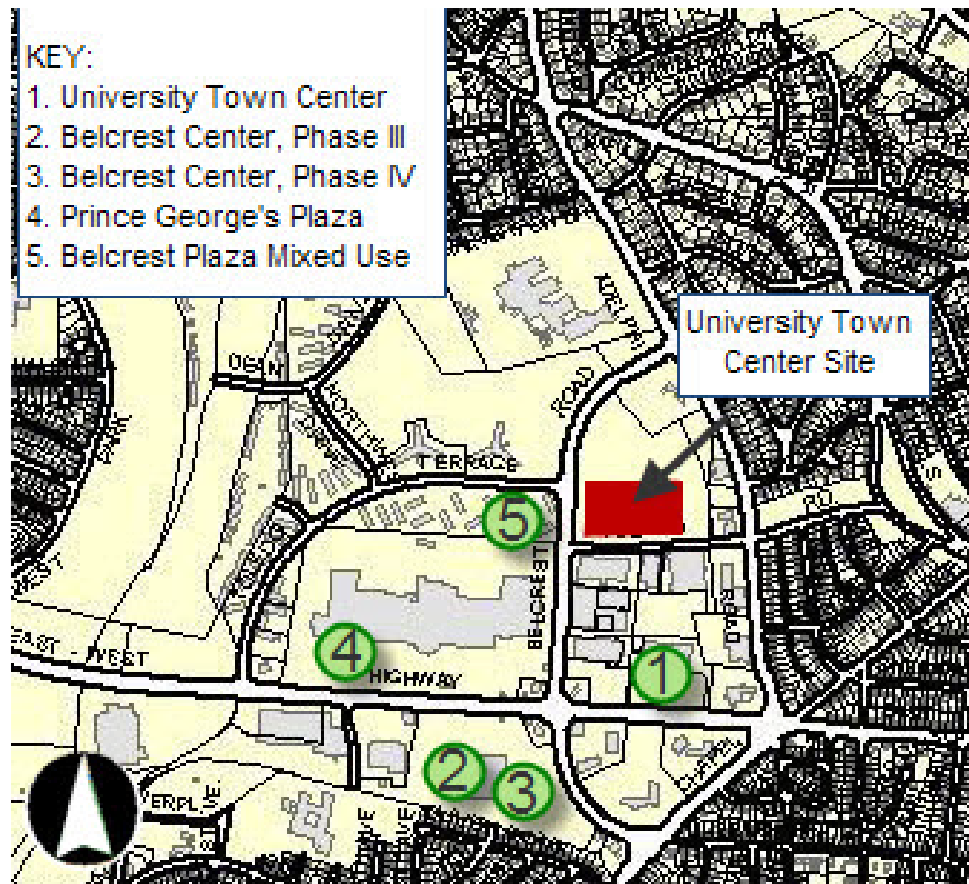


Figure 21. University Town Center Approved Developments (not to scale)

**Table 18. University Town Center Approved Planned Developments**


SR #	Land Use	Code	Size	Unit	Morning Peak			Evening Peak		
					In	Out	Total	In	Out	Total
	University Town Center Site									
1	University Town Center									
	Safeway		57,000	SF *	113	72	185	304	292	596
2	Belcrest Center, Phase III									
	Mixed-Use, Retail & Office		328,574	SF*	394	99	493	361	559	920
3	Belcrest Center, Phase IV									
	Hotel		93,000	SF*	33	28	61	42	33	75
4	Prince George's Plaza									
	Restaurant		6,574	SF*	40	36	76	43	30	73
5	Belcrest Plaza Mixed Use									
	Multi-Family Dwellings		2,618	DU*	157	628	785	681	367	1,048
	Townhouses		58	DU*	8	30	38	33	16	49
	Retail		62,100	SF*	38	24	62	114	118	232
	Office		176,000	SF*	317	35	352	62	264	326
	Total Trips				520	717	1,237	890	765	1,655

\*SF = Square Feet, DU = Dwelling Units

The No-Action traffic volumes for the University Town Center site were obtained by combining the existing traffic volumes with the planned development volumes. These volumes are presented in Figure 22 and the LOS results are presented in Table 19 below. The CLV calculations sheets are attached in Appendix C. Most of the intersections are expected to operate at an acceptable LOS during both peak hours. The only intersection which is expected to be operating at an unacceptable LOS is East-West Highway (MD 410)/Belcrest Road during the evening peak hours.

**Table 19. University Town Center Future Conditions under the No-Action Alternative LOS Results**

Intersection		Existing		Future Condition without Proposed Action (No-Action)	
		morning LOS (CLV)	Evening LOS (CLV)	morning LOS (CLV)	Evening LOS (CLV)
University Town Center Site					
1.	East-West Highway (MD 410)/Belcrest Road	B (1,015)	C (1,256)	E (1,458)	<b>F (1,961)</b>
2.	Belcrest Road/Toledo Road	A (434)	B (1,045)	A (735)	E (1,504)
3.	Belcrest Road/Adelphi Road	A (648)	A (928)	A (897)	C (1,250)

 Depicts intersection which operate at an unacceptable LOS (CLV>1,600)

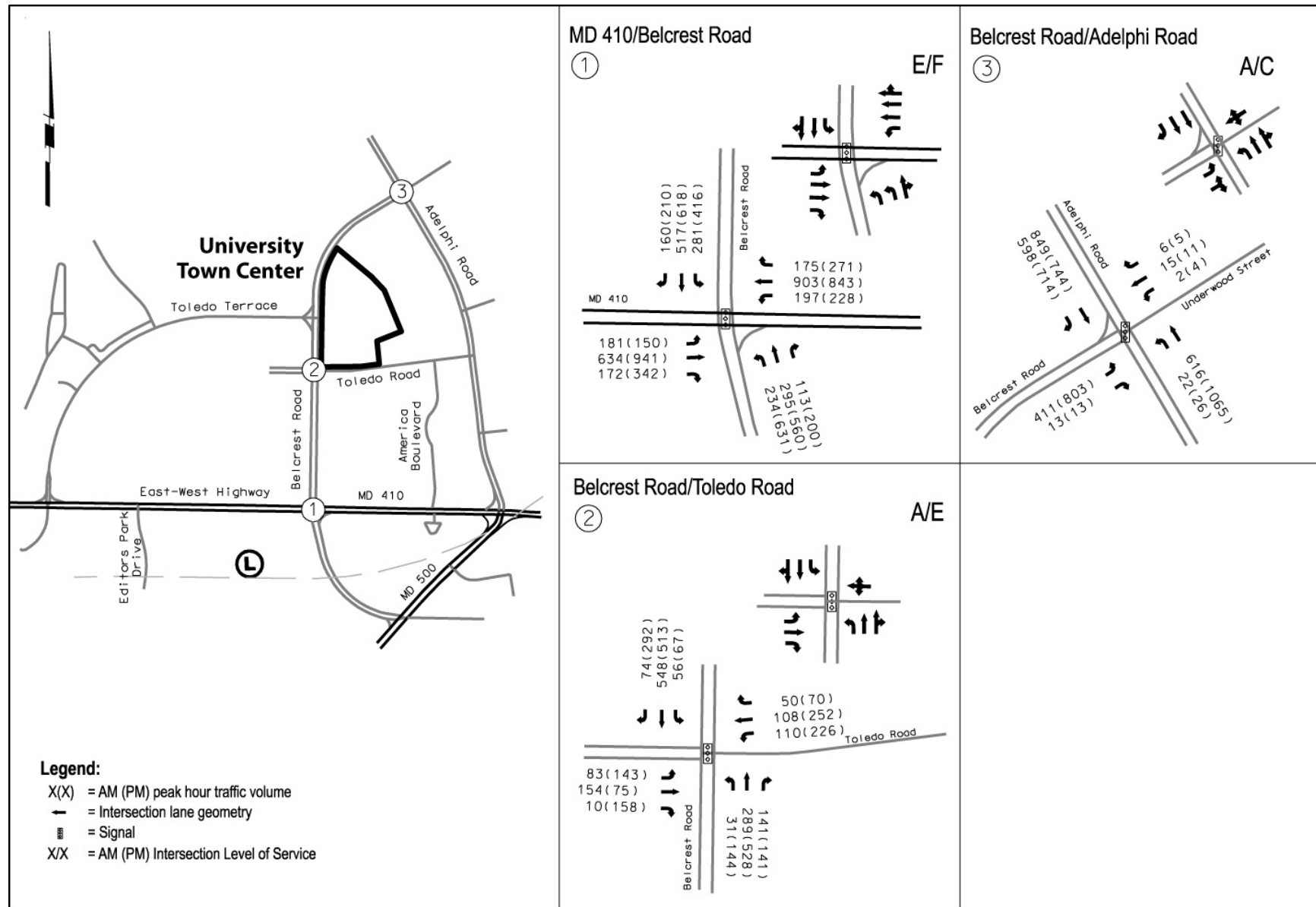


Figure 22. University Town Center Future Conditions without Proposed Action (No-Action) (not to scale)

### 3.2 Future Conditions with the Proposed Action (Action Alternatives)

The Future Conditions with the Proposed Action (Action Alternatives) analysis examines each of the proposed sites with the future anticipated volumes taking into consideration traffic under the No-Action Alternative as well as traffic that would be generated by the proposed HHS Lease Consolidation.

Under the Future Conditions with Proposed Action (Action Alternatives), the number of employees at the HHS Lease Consolidation would be approximately 2,900. At the Parklawn Building site this would constitute an increase of approximately 200 employees which will be relocated from other offices. At each of the other locations, all 2,900 employees would be relocated to the chosen site.

Each of the proposed sites was analyzed using the guidelines from the County in which they are located. In addition to having different CLV thresholds as previously discussed, Prince George's County and Montgomery County M-NCPPC's each have their own trip generation rates. This leads to the Montgomery County sites having different numbers of Vehicle Trips than the Prince George's County sites.

There were no reductions made for transit usage in the trip generation at any of the sites. While current transit usage for HHS employees at the Parklawn Building is approximately 10%, each of the sites offers different proximities to transit and parking availability. Therefore, it was assumed transit usage would be a mitigation measure based on the needs for each particular location.

#### 3.2.1 Irvington Centre at King Farm (King Farm)

##### *Site Trip Generation*

The number of trips that would be generated by the HHS Lease Consolidation at the King Farm site was based on the approximate square footage of the new building and the trip generation rates from the Montgomery County guidelines for office space. The King Farm site trip generation is shown in Table 20.

**Table 20. Irvington Centre at King Farm Site Trip Generation**

	morning	evening
HHS Employees	2,900	2,900
Gross Floor Area	935,401 SF	935,401 SF
Percent in Peak Hour (peak direction)	87%	83%
Percent in Peak Hour (non-peak direction)	13%	17%
Peak Hour Vehicle Trips (peak direction)	1,484	1,223
Peak Hour Vehicle Trips (non-peak direction)	222	251
<b>Total Vehicle Trips</b>	<b>1,705</b>	<b>1,474</b>

##### *Site Trip Distribution*

Vehicular trip distributions were based upon Table D-4 of the LATR & PAMR guidelines provided by M-NCPPC for Super District 4, Rockville/North Bethesda as well as proposed site access points and current roadway network.

The trip distribution percentages are presented below:

- 37% to/from the west, north and northwest via I-270/ Shady Grove Road/Piccard Drive to King Farm Boulevard;
- 13% to/from the northeast via MD 355 to King Farm Boulevard;
- 12% to/from east via Shady Grove Road to King Farm Boulevard;
- 9% from southeast via Redland Road to King Farm Boulevard;
- 8% to/from southeast via ICC/MD 355 to King Farm Boulevard; and
- 21% to/from south and southwest via I-270/Piccard Drive to King Farm Boulevard.

#### *Site Trip Assignment*

The trip generation estimated for the HHS Lease Consolidation was distributed along the study area roadways/intersections based on the trip distribution estimates presented above. The site trip assignment is presented in Figure 23.

#### *Traffic Operations Analysis*

Traffic impacts from the proposed action at the King Farm site were determined by adding the site traffic volumes (Figure 23) to the No-Action Volumes (Figure 14). Intersection capacity analyses were performed at the study intersections and the results are presented in Figure 24 and Table 21.

As can be seen in Table 21, most of the intersections are expected to operate at an unacceptable level under the Action Alternative during one or both peak hours. The King Farm Boulevard/Piccard Drive is expected to increase from an acceptable level to an unacceptable level in both the morning and evening peak hours. The Shady Grove Road/Choke Cherry Road intersection is expected to see an increase from an acceptable to an unacceptable level of service in the evening peak hour.

**Table 21. Irvington Centre at King Farm Future Condition under the Action Alternative LOS Results**

Intersection		Future Condition without Proposed Action (No-Action)		Future Condition with Proposed Action (Action Alternative)	
		morning (CLV)	evening (CLV)	morning (CLV)	evening (CLV)
Irvington Centre at King Farm Site					
1.	King Farm Boulevard/Piccard Drive	Acceptable (407)	Acceptable (628)	<b>Unacceptable (2,295)</b>	<b>Unacceptable (2,222)</b>
2.	Shady Grove Road/Choke Cherry Road	Acceptable (1,098)	Acceptable (1,517)	Acceptable (1,336)	<b>Unacceptable (1,789)</b>
3.	Piccard Drive/Redland Boulevard	Acceptable (713)	Acceptable (611)	Acceptable (900)	Acceptable (1,002)
4.	King Farm Boulevard/South Frederick Road (MD 355)	Acceptable (1,232)	Acceptable (1,288)	Acceptable (1,451)	Acceptable (1,542)

**Unacceptable** Depicts intersection which operate at an unacceptable LOS (CLV>1,400 for intersection 3, CLV>1,550 for intersections 2 & 4, CLV>1,600 for intersection 1)

### Mitigation Measures

Currently, 10-20% of HHS employees use public transit and participate in the SmartBenefits program. HHS currently provides employees with transit subsidies, telecommuting programs, carpool/vanpool incentives, and flexible work hours. These programs would be continued under this alternative which would reduce the number of peak hour vehicle trips and mitigate some of the traffic impacts. However, these strategies may not be sufficient to negate the need for roadway improvements.

Improvements would be required at some intersections to bring them to acceptable levels of service. This could include the addition of lanes or redesignating lane uses. However, GSA would require the developer/owner to coordinate with the applicable local and/or State transportation planning agencies to determine the appropriate transportation mitigation measures to mitigate the traffic impacts associated with the HHS Lease Consolidation. The developer/owner would be required to implement any necessary roadway improvements and other potential transportation mitigation measures.

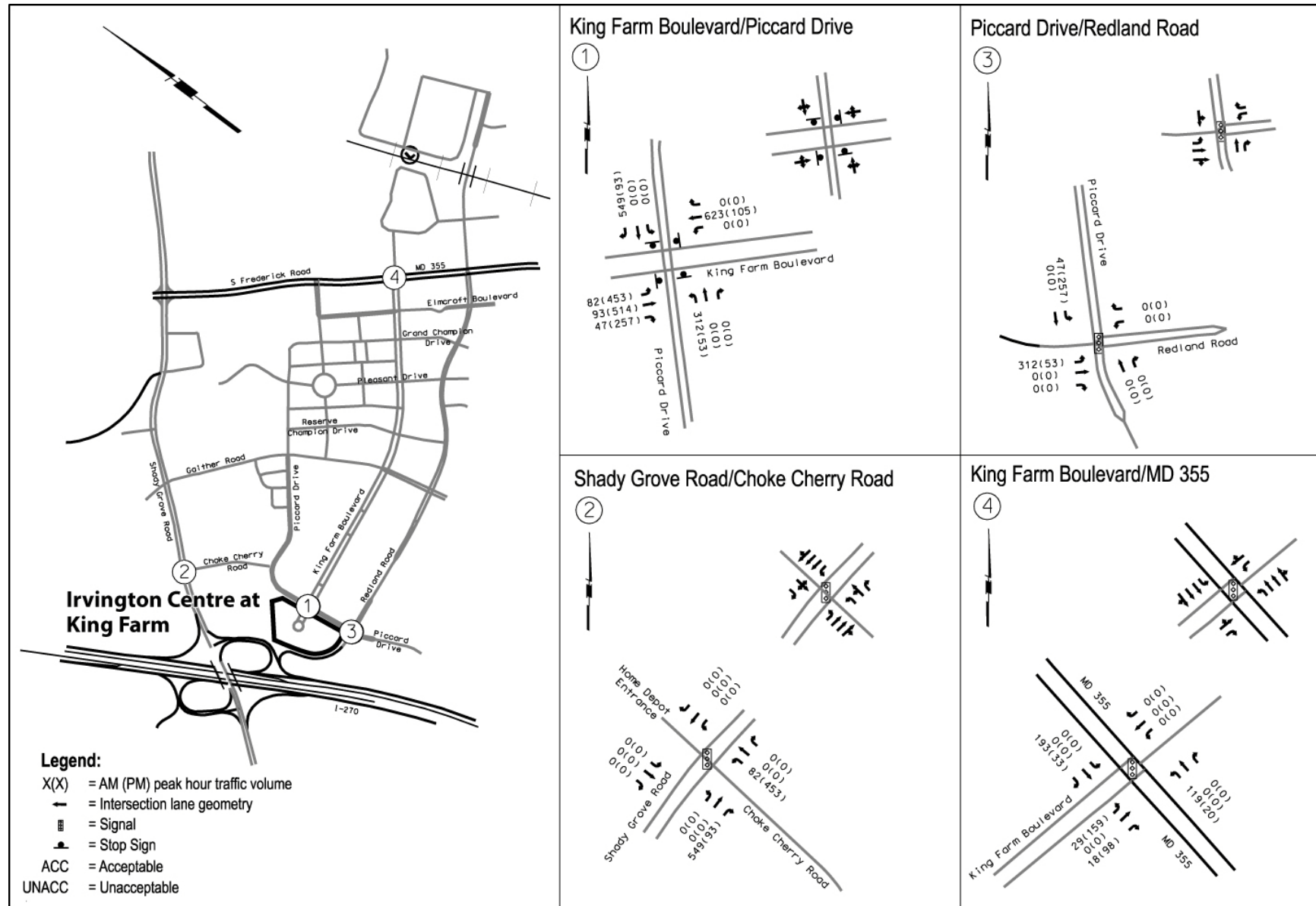


Figure 23. Irvington Centre at King Farm Future Site Traffic Assignment (not to scale)

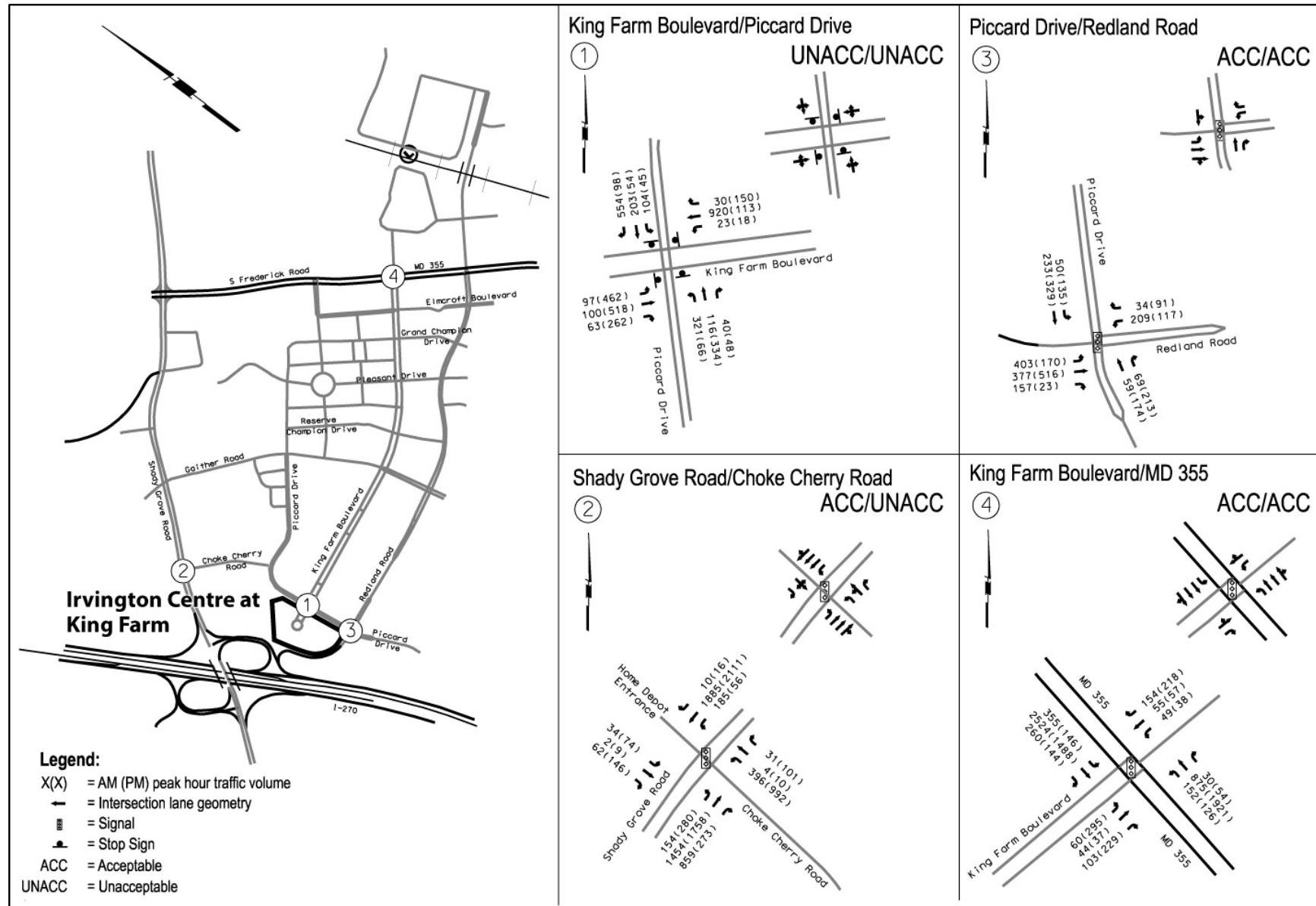


Figure 24. Irvington Centre at King Farm Future Conditions with Proposed Action (Action Alternative) (not to scale)

### 3.2.2 New Carrollton Metro

#### Site Trip Generation

The number of trips that would be generated at the New Carrollton Metro site was based on the approximate square footage of the new building and the trip generation rates from the Prince George's County guidelines for general office space. The site trip generation is shown in Table 22.

**Table 22. New Carrollton Metro Site Trip Generation**

	morning	evening
HHS Employees	2,900	2,900
Gross Floor Area	935,401 SF	935,401 SF
Percent in Peak Hour (peak direction)	90%	81%
Percent in Peak Hour (non-peak direction)	10%	19%
Peak Hour Vehicle Trips (peak direction)	1,684	1,403
Peak Hour Vehicle Trips (non-peak direction)	187	327
<b>Total Peak Hour Vehicle Trips</b>	<b>1,871</b>	<b>1,730</b>

#### Site Trip Distribution

Vehicular trip distributions were based on the assumption that office occupants would commute from all directions based on capacity and proximity of the existing roadway network to each of the sites and on proposed access points.

The trip distribution percentages are presented below:

- 10% to/from the southwest via US 50/MD 410 to Ellin Road;
- 15% to/from the west and northwest via MD 410 to Ellin Road;
- 25% to/from north and northwest via I-495/MD 450 85<sup>th</sup> Avenue/Ellin Road;
- 5% to/from the northwest via MD 450/Harkins Road to Ellin Road;
- 10% to/from east via US 50 to Ellin Road;
- 25% to/from the south and southeast via I-495/US 50 to Ellin Road; and
- 10% to/from the south via MD 410 to Ellin Road.

#### Site Trip Assignment

The trip generation estimated for the HHS Lease Consolidation was distributed along the study area roadways/intersections based on the trip distribution estimates presented above. The site trip assignment is presented in Figure 25.

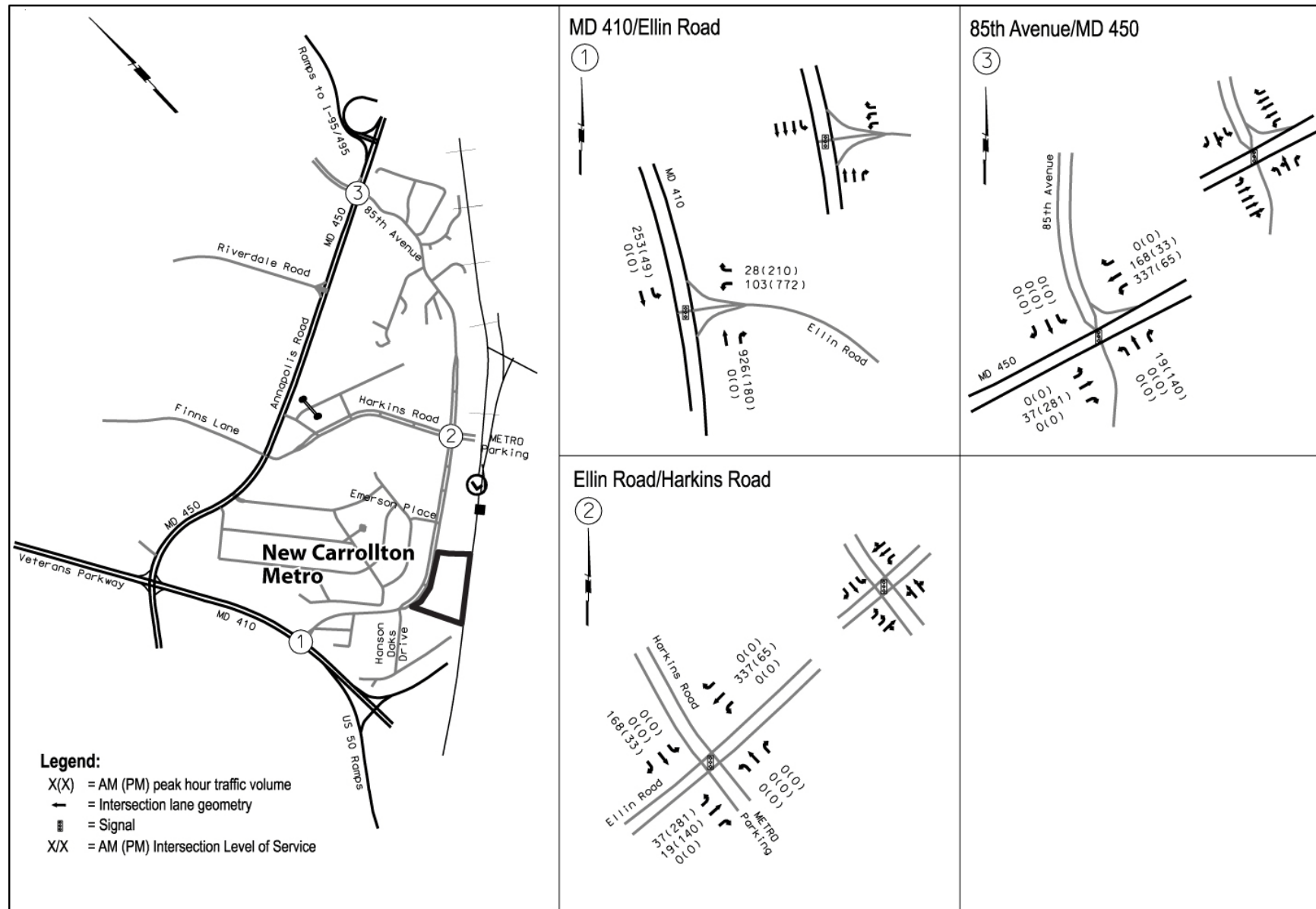


Figure 25. New Carrollton Metro Center Future Site Traffic Assignment (not to scale)


### Traffic Operations Analysis

Traffic impacts from the proposed action at the New Carrollton Metro site were determined by adding the site traffic volumes (Figure 25) to the No-Action Volumes (Figure 16). Intersection capacity analyses were performed at the study intersections and the results are presented in Figure 26 and Table 23.

As can be seen in Table 23, most of the intersections are expected to operate at an unacceptable level under the Action Alternative during one of the peak hours. The Veterans Parkway (MD 410)/Ellin Road and the 85<sup>th</sup> Avenue/Annapolis Road (MD 450) intersections are expected to increase from an acceptable level to an unacceptable level the evening peak hour.

**Table 23. New Carrollton Metro Future Condition under the Action Alternative LOS Results**

Intersection		Future Condition without Proposed Action (No-Action)		Future Condition with Proposed Action (Action)	
		morning (CLV)	evening (CLV)	morning (CLV)	evening (CLV)
New Carrollton Metro Site					
1.	Veterans Parkway (MD 410)/Ellin Road	C (1,188)	B (1,134)	E (1,502)	<b>F (1,647)</b>
2.	Ellin Road/Harkins Road	A (540)	A (679)	A (730)	A (799)
3.	85 <sup>th</sup> Avenue/Annapolis Road (MD 450)	C (1,152)	E (1,513)	E (1,456)	<b>F (1,771)</b>

 Depicts intersection which operate at an unacceptable LOS (CLV>1,600)

### Mitigation Measures

Currently, 10-20% of HHS employees use public transit and participate in the SmartBenefits program. HHS currently provides employees with transit subsidies, telecommuting programs, carpool/vanpool incentives, and flexible work hours. These programs would be continued under this alternative which would reduce the number of peak hour vehicle trips and mitigate some of the traffic impacts. However, these strategies may not be sufficient to negate the need for roadway improvements.

Improvements could include providing auxiliary turn lanes. However, GSA would require the developer/owner to coordinate with the applicable local and/or State transportation planning agencies to determine the appropriate transportation mitigation measures to mitigate the traffic impacts associated with the HHS Lease Consolidation. The developer/owner would be required to implement any necessary roadway improvements and other potential transportation mitigation measures.

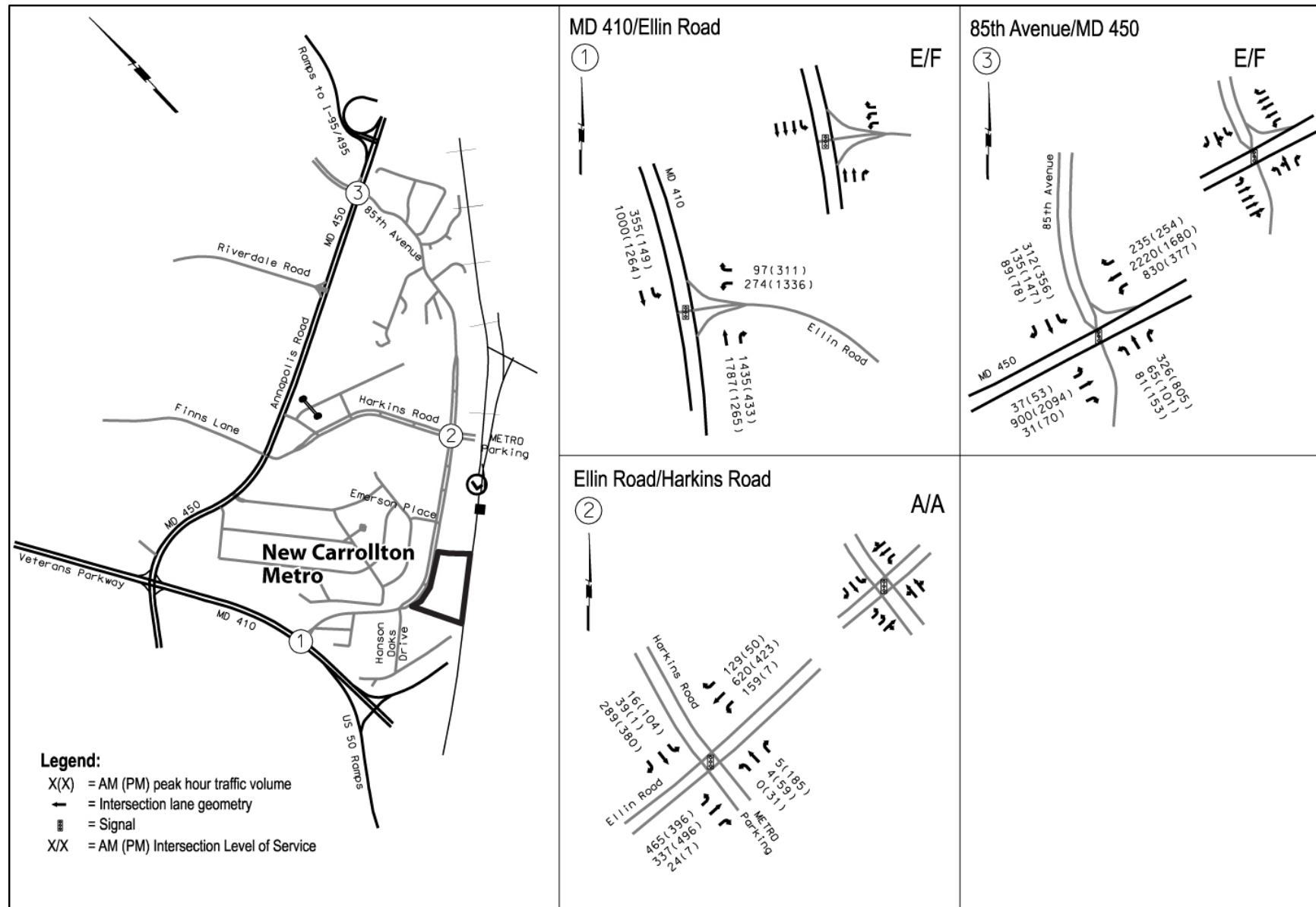


Figure 26. New Carrollton Metro Future Conditions with Proposed Action (Action Alternative) (not to scale)

### 3.2.3 One Largo Metro

#### Site Trip Generation

The number of trips that would be generated by the HHS Lease Consolidation at the One Largo Metro site was based on the approximate square footage of the new building and the trip generation rates from the Prince George's County guidelines for general office space.. The site trip generation is shown in Table 24.

**Table 24. One Largo Metro Site Trip Generation**

	morning	evening
HHS Employees	2,900	2,900
Gross Floor Area	935,401 SF	935,401 SF
Percent in Peak Hour (peak direction)	90%	81%
Percent in Peak Hour (non-peak direction)	10%	19%
Peak Hour Vehicle Trips (peak direction)	1,684	1,403
Peak Hour Vehicle Trips (non-peak direction)	187	327
<b>Total Peak Hour Vehicle Trips</b>	<b>1,871</b>	<b>1,730</b>

#### Site Trip Distribution

Vehicular trip distributions were based on the assumption that office occupants would commute from all directions based on capacity and proximity of the existing roadway network to each of the sites and on proposed access points.

The trip distribution percentages are presented below:

- 15% to/from the west via MD 214 to N. Harry S. Truman Drive;
- 8% to/from the northwest via MD 202/Lottsford Road to N. Harry S. Truman Drive;
- 7% to/from the northwest via MD 202/Arena Drive/Lottsford Road to N. Harry S. Truman Drive;
- 20% to/from the north and northeast via I-495/Arena Drive/Lottsford Road to N. Harry S. Truman Drive;
- 15% to/from east via MD 214/MD 202/Arena Drive/Lottsford Road to N. Harry S. Truman Drive;
- 15% to/from the southeast via MD 202/Arena Drive/Lottsford Road to N. Harry S. Truman Drive; and
- 20% to/from the south via I-495 to N. Harry S. Truman Drive.

#### Site Trip Assignment

The trip generation estimated for the HHS Lease Consolidation was distributed along the study area roadways/intersections based on the trip distribution estimates presented above. The site trip assignment is presented in Figure 27.

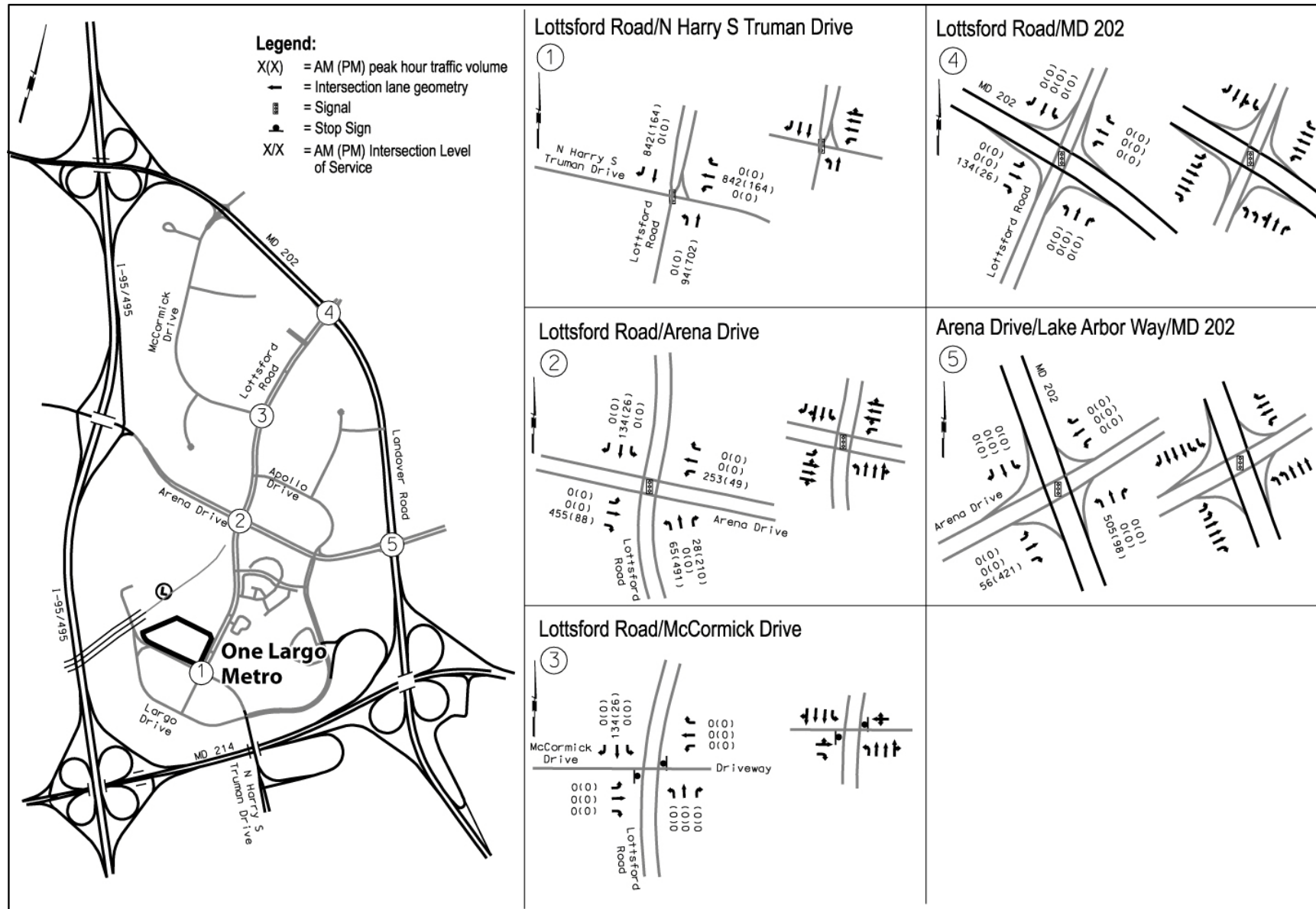


Figure 27. One Largo Metro Future Site Traffic Assignment (not to scale)


### Traffic Operations Analysis

Traffic impacts from the proposed action at the One Largo Metro site were determined by adding the site traffic volumes (Figure 27) to the No-Action Volumes (Figure 18). Intersection capacity analyses were performed at the study intersections and the results are presented in Figure 28 and Table 25.

As can be seen in Table 25, a majority of the intersections are expected to operate at an unacceptable level under the Action Alternative during one or both peak hours. The area in which the One Largo Metro site is located is considered developing and therefore, according to Prince George's County guidelines, a LOS of 'E' is considered unacceptable. The Lottsford Road/N. Harry S. Truman Drive intersection is expected to increase from an acceptable level to an unacceptable level in both the morning and evening peak hours. The Lottsford Road/Arena Drive intersection is expected to increase from an acceptable level to an unacceptable level the evening peak hour. The Lottsford Road/MD 202 intersection is expected maintain the same level of unacceptability in the evening peak hour as the No-Action Alternative.

**Table 25. One Largo Metro Future Condition under the Action Alternative LOS Results**

Intersection		Future Condition without Proposed Action (No-Action)		Future Condition with Proposed Action (Action)	
		morning (CLV)	evening (CLV)	morning (CLV)	evening (CLV)
One Largo Metro Site					
1.	Lottsford Road/North Harry S. Truman Drive	A (738)	A (660)	<b>F (1,910)</b>	<b>E (1,587)</b>
2.	Lottsford Road/Arena Drive	A (809)	B (1,090)	C (1,295)	<b>E (1,507)</b>
3.	Lottsford Road/McCormick Drive	A (562)	A (509)	A (612)	A (518)
4.	Lottsford Road/Landover Road (MD 202)	D (1,341)	<b>E (1,459)</b>	D (1,341)	<b>E (1,459)</b>
5.	Arena Drive/Lake Arbor Way/Landover Road (MD 202)	C (1,188)	D (1,315)	D (1,409)	D (1,373)

 Depicts intersection which operate at an unacceptable LOS (CLV>1,450)

### Mitigation Measures

Currently, 10-20% of HHS employees use public transit and participate in the SmartBenefits program. HHS currently provides employees with transit subsidies, telecommuting programs, carpool/vanpool incentives, and flexible work hours. These programs would be continued under this alternative which would reduce the number of peak hour vehicle trips and mitigate some of the traffic impacts. However, these strategies may not be sufficient to negate the need for roadway improvements.

Additional lanes may be required at the intersections to provide acceptable levels of service. However, GSA would require the developer/owner to coordinate with the applicable local and/or State transportation planning agencies to determine the appropriate transportation mitigation measures to mitigate the traffic impacts associated with the HHS Lease Consolidation. The developer/owner would be required to implement any necessary roadway improvements and other potential transportation mitigation measures.

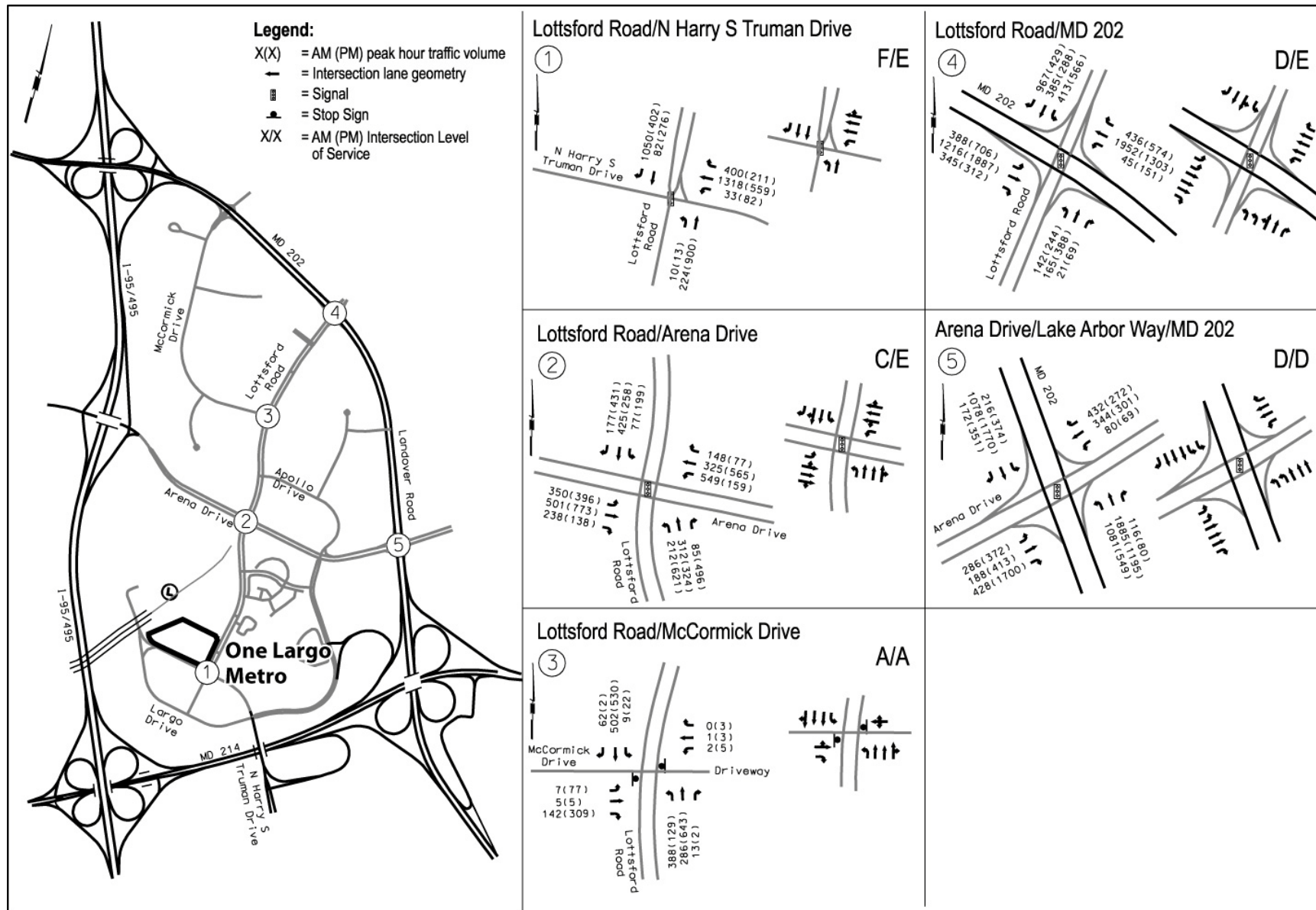


Figure 28. One Largo Metro Future Conditions with Proposed Action (Action Alternative) (not to scale)

### 3.2.4 Parklawn Building

#### *Site Trip Generation*

The number of trips that would be generated by the HHS Lease Consolidation at the Parklawn site was based on the number of employees which will be added to the Parklawn Building. The site trip generation is shown in Table 26.

**Table 26. Parklawn Building Site Trip Generation**

	morning	evening
Additional HHS Employees	200	200
Gross Floor Area	935,401 SF	935,401 SF
Percent in Peak Hour (peak direction)	87%	83%
Percent in Peak Hour (non-peak direction)	13%	17%
Peak Hour Vehicle Trips (peak direction)	67	61
Peak Hour Vehicle Trips (non-peak direction)	10	12
<b>Total Peak Hour Vehicle Trips</b>	<b>77</b>	<b>73</b>

#### *Site Trip Distribution*

Vehicular trip distributions were based upon Table D-4 of the LATR & PAMR guidelines provided by M-NCPPC for Super District 4, Rockville/North Bethesda as well as proposed site access points and current roadway network.

The trip distribution percentages are presented below:

- 45% to/from the north and northwest via I-270/MD 355/Twinbrook Parkway to Fishers Lane;
- 7% to/from northeast via MD 28/Twinbrook Pkwy to Fishers Lane;
- 10% to/from east via Randolph Road/Parklawn Drive/Twinbrook Pkwy to Fishers Lane;
- 25% to/from south and southwest via I-270/MD 355/Twinbrook Parkway to Fishers Lane; and
- 13% to/from the southeast via MD 586/ Twinbrook Parkway to Fishers Lane.

#### *Site Trip Assignment*

The trip generation estimated for the HHS Lease Consolidation was distributed along the study area roadways/intersections based on the trip distribution estimates presented above. The site trip assignment is presented in Figure 29.

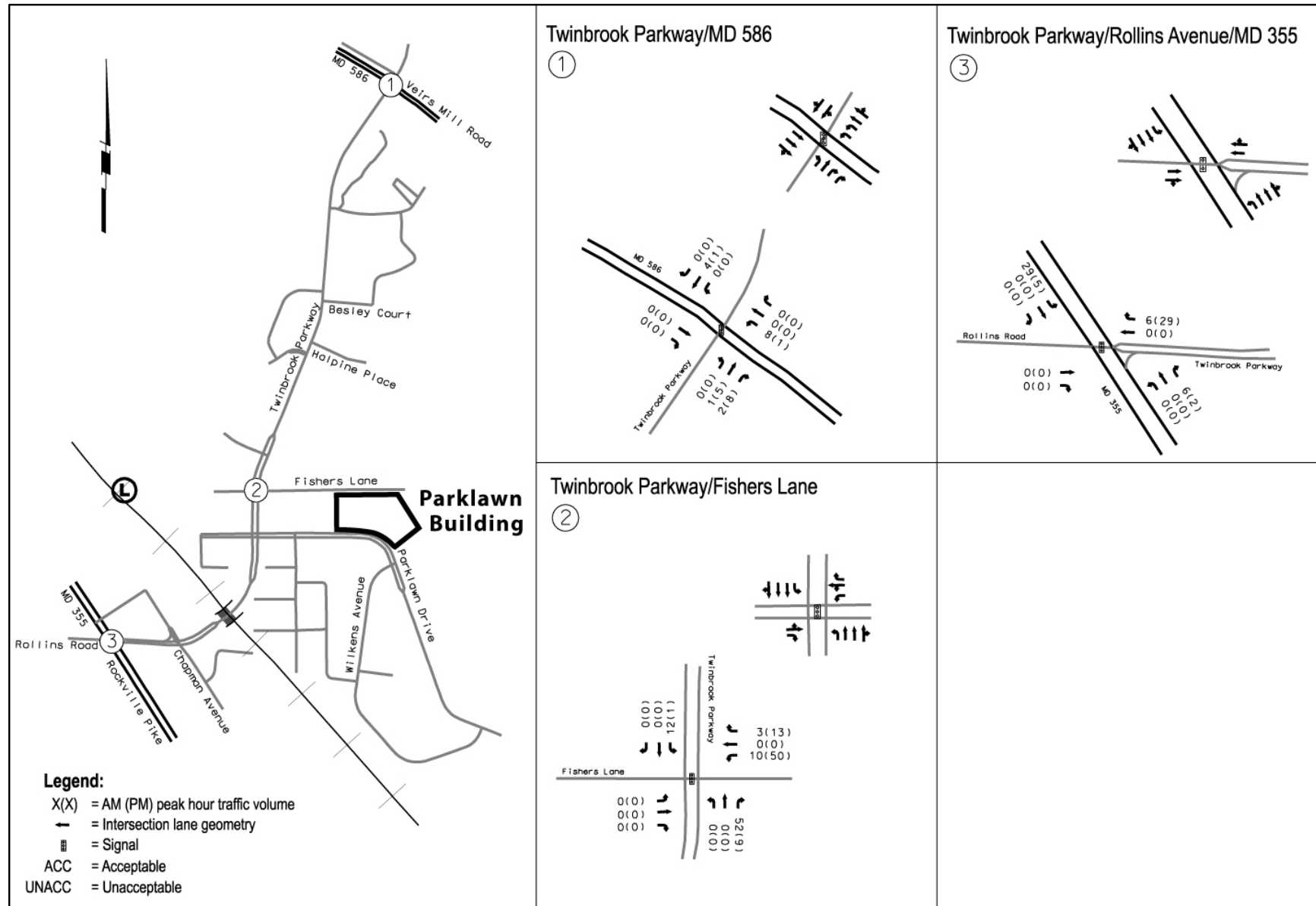


Figure 29. Parklawn Building Future Site Traffic Assignment (not to scale)


### Traffic Operations Analysis

Impacts from the HHS Lease Consolidation at the Parklawn site were determined by adding the site traffic volumes (Figure 29) to the No-Action Volumes (Figure 20). Intersection capacity analyses were performed at the study intersections and the results are presented in Figure 30 and Table 27.

As can be seen in Table 27, most of the intersections are expected to operate at an unacceptable level under the Action Alternative during one or both peak hours. The Twinbrook Parkway/MD 586 and Twinbrook Parkway/MD 355 intersections are expected to see a slight increase in the level of unacceptability in the evening peak hour.

**Table 27. Parklawn Building Future Condition under the Action Alternative LOS Results**

Intersection		Future Condition without Proposed Action (No-Action)		Future Condition with Proposed Action (Action)	
		morning (CLV)	evening (CLV)	morning (CLV)	evening (CLV)
Parklawn Building Site					
1.	Twinbrook Parkway/Veirs Mill Road (MD 586)	Acceptable (1,496)	<b>Unacceptable (1,605)</b>	Acceptable (1,499)	<b>Unacceptable (1,611)</b>
2.	Twinbrook Parkway/Fishers Lane	Acceptable (967)	Acceptable (1,283)	Acceptable (1,027)	Acceptable (1,296)
3.	Twinbrook Parkway/ Rollins Avenue/Rockville Pike (MD 355)	Acceptable (1,450)	<b>Unacceptable (2,265)</b>	Acceptable (1,478)	<b>Unacceptable (2,300)</b>

 Depicts intersection which operate at an unacceptable LOS (CLV>1,550 at MD 586, CLV>1,800 at MD 355)

### Mitigation Measures

Currently, 10-20% of HHS employees use public transit and participate in the SmartBenefits program. HHS currently provides employees with transit subsidies, telecommuting programs, carpool/vanpool incentives, and flexible work hours. These programs would be continued under this alternative which would reduce the number of peak hour vehicle trips and mitigate some of the traffic impacts. However, these strategies may not be sufficient to negate the need for roadway improvements.

GSA would require the developer/owner to coordinate with the applicable local and/or State transportation planning agencies to determine the appropriate transportation mitigation measures to mitigate the traffic impacts associated with the HHS Lease Consolidation. The developer/owner would be required to implement any necessary roadway improvements and other potential transportation mitigation measures.

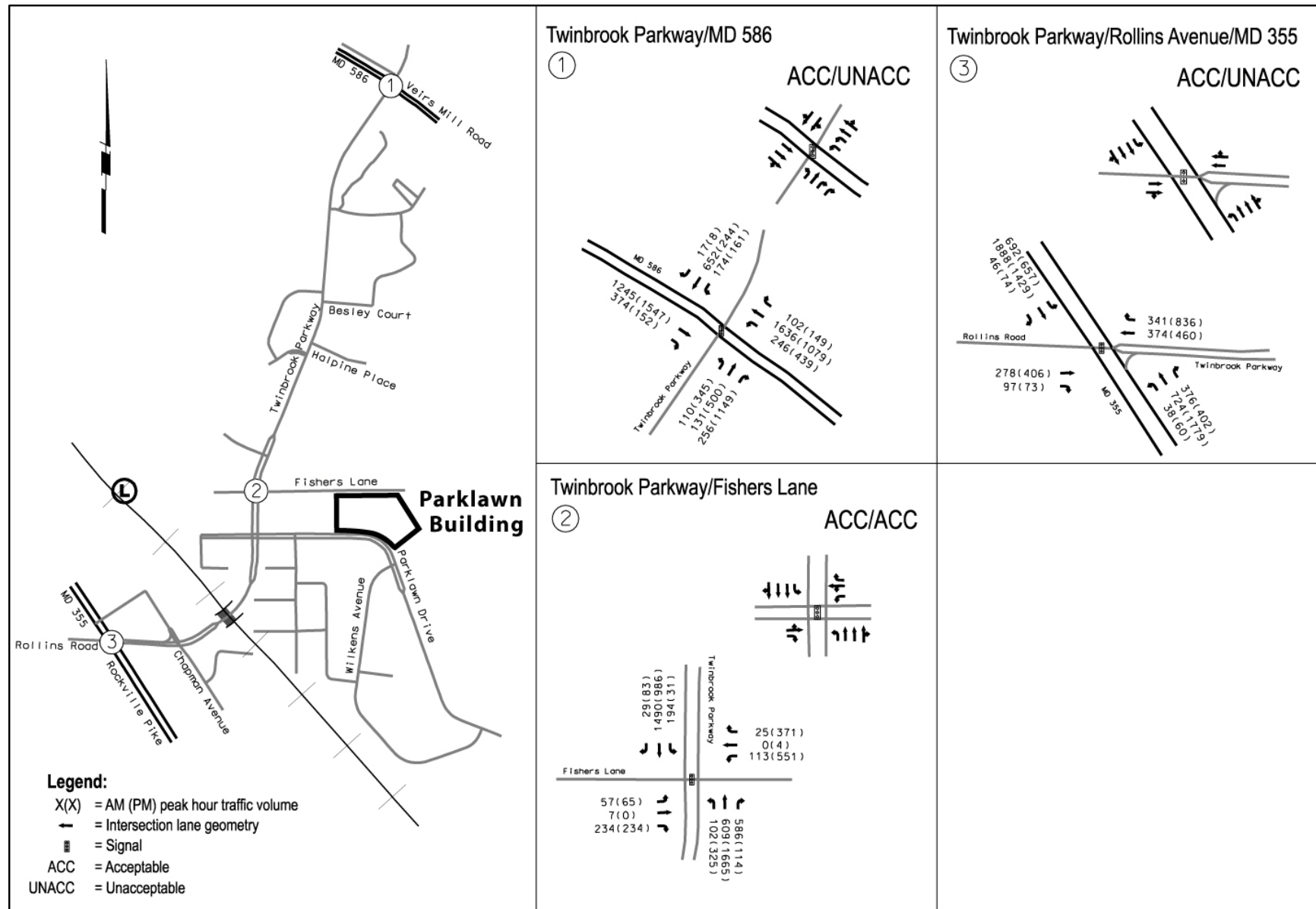


Figure 30. Parklawn Building Future Conditions with Development (Action Alternative) (not to scale)

### 3.2.5 University Town Center

#### *Site Trip Generation*

The number of trips that would be generated by the HHS Lease Consolidation at the University Town Center site was based on the approximate square footage of the new building and the trip generation rates from the Prince George's County guidelines for general office space. The site trip generation is shown in Table 28.

**Table 28. University Town Center Site Trip Generation**

	morning	evening
HHS Employees	2,900	2,900
Gross Floor Area	935,401 SF	935,401 SF
Percent in Peak Hour (peak direction)	90%	81%
Percent in Peak Hour (non-peak direction)	10%	19%
Peak Hour Vehicle Trips (peak direction)	1,684	1,403
Peak Hour Vehicle Trips (non-peak direction)	187	327
<b>Total Peak Hour Vehicle Trips</b>	<b>1,871</b>	<b>1,730</b>

#### *Site Trip Distribution*

Vehicular trip distributions were based on the assumption that office occupants would commute from all directions based on capacity and proximity of the existing roadway network to each of the sites and on proposed access points.

The trip distribution percentages are presented below:

- 30% to/from the west and northwest via MD 410/Belcrest Road to Toledo Terrace;
- 25% to/from the north and northeast via Adelphi Road to Belcrest Road;
- 10% to/from east and southeast via MD 410 to Toledo Road;
- 10% to/from east and southeast via MD 410/Adelphi Road to Belcrest Road; and
- 25% to/from the south and southeast via MD 500/Adelphi Road to Belcrest Road/Toledo Road.

#### *Site Trip Assignment*

The trip generation estimated for the HHS Lease Consolidation was distributed along the study area roadways/intersections based on the trip distribution estimates presented above. The site trip assignment is presented in Figure 31.

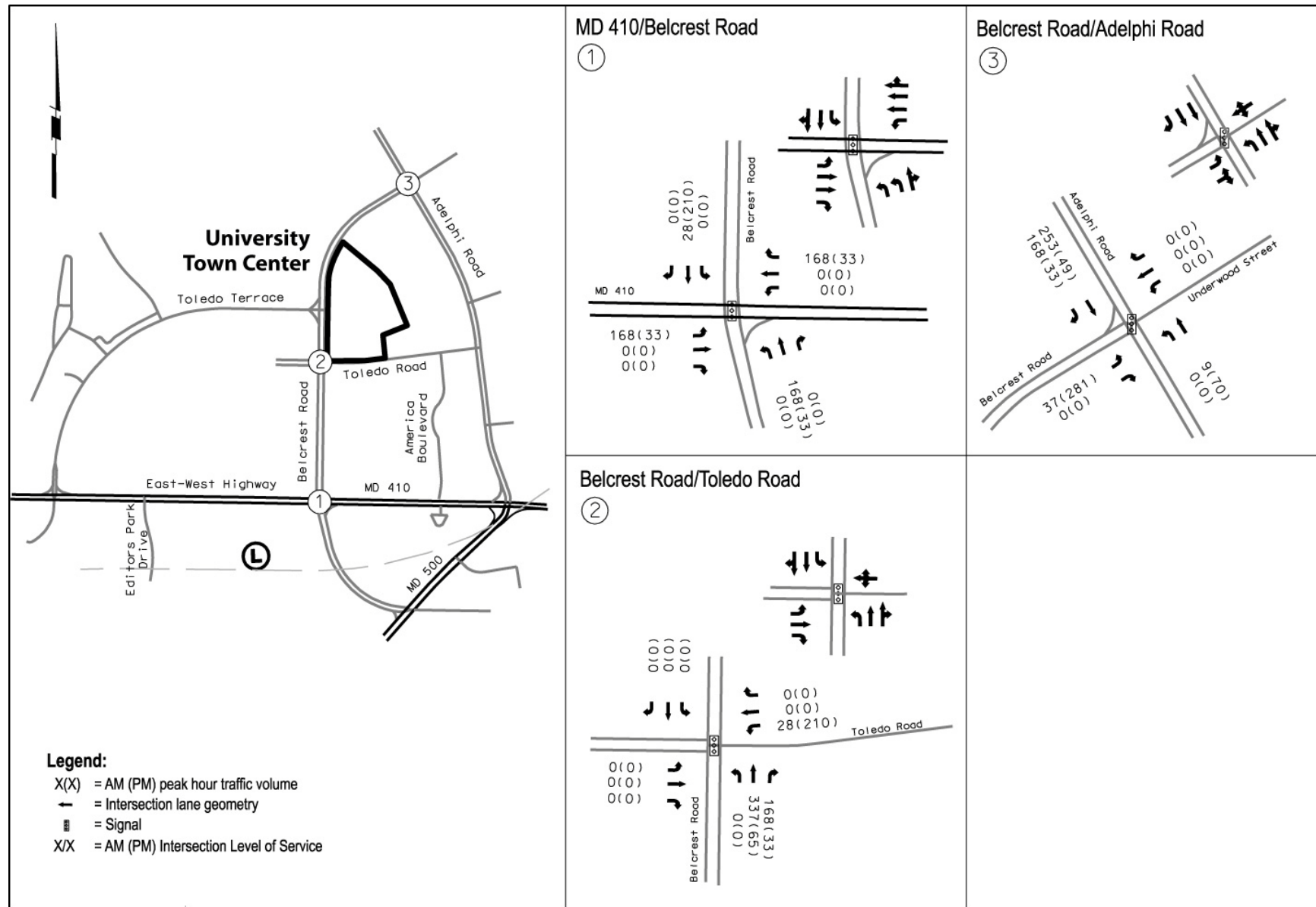


Figure 31. University Town Center Future Site Traffic Assignment (not to scale)


### Traffic Operations Analysis

Traffic impacts from the proposed action at the University Town Center site were determined by adding the site traffic volumes (Figure 31) to the No-Action Volumes (Figure 22). Intersection capacity analyses were performed at the study intersections and the results are presented in Figure 32 and Table 29.

As can be seen in Table 29, most of the intersections are expected to operate at an unacceptable level under the Action Alternative during one or both peak hours. The MD 410/Belcrest Road intersection is expected to increase from an acceptable level to an unacceptable level in both the morning and evening peak hours. The Belcrest Road/Toledo Road intersection is expected to increase from an acceptable level to an unacceptable level the evening peak hour.

**Table 29. University Town Center Future Condition under the Action Alternative LOS Results**

Intersection		Future Condition without Proposed (No-Action)		Future Condition with Proposed Action (Action)	
		morning (CLV)	evening (CLV)	morning (CLV)	evening (CLV)
University Town Center Site					
1.	East-West Highway (MD 410)/Belcrest Road	E (1,458)	<b>F (1,961)</b>	<b>F (1,810)</b>	<b>F (2,110)</b>
2.	Belcrest Road/Toledo Road	A (735)	E (1,504)	A (963)	<b>F (1,924)</b>
3.	Belcrest Road/Adelphi Road	A (897)	C (1,250)	A (928)	D (1,313)

 Depicts intersection which operate at an unacceptable LOS (CLV>1,600)

### Mitigation Measures

Currently, 10-20% of HHS employees use public transit and participate in the SmartBenefits program. HHS currently provides employees with transit subsidies, telecommuting programs, carpool/vanpool incentives, and flexible work hours. These programs would be continued under this alternative which would reduce the number of peak hour vehicle trips and mitigate some of the traffic impacts. However, these strategies may not be sufficient to negate the need for roadway improvements.

Additional lanes may be required at the intersections to mitigate the impacts. However, GSA would require the developer/owner to coordinate with the applicable local and/or State transportation

planning agencies to determine the appropriate transportation mitigation measures to mitigate the traffic impacts associated with the HHS Lease Consolidation. The developer/owner would be required to implement any necessary roadway improvements and other potential transportation mitigation measures.

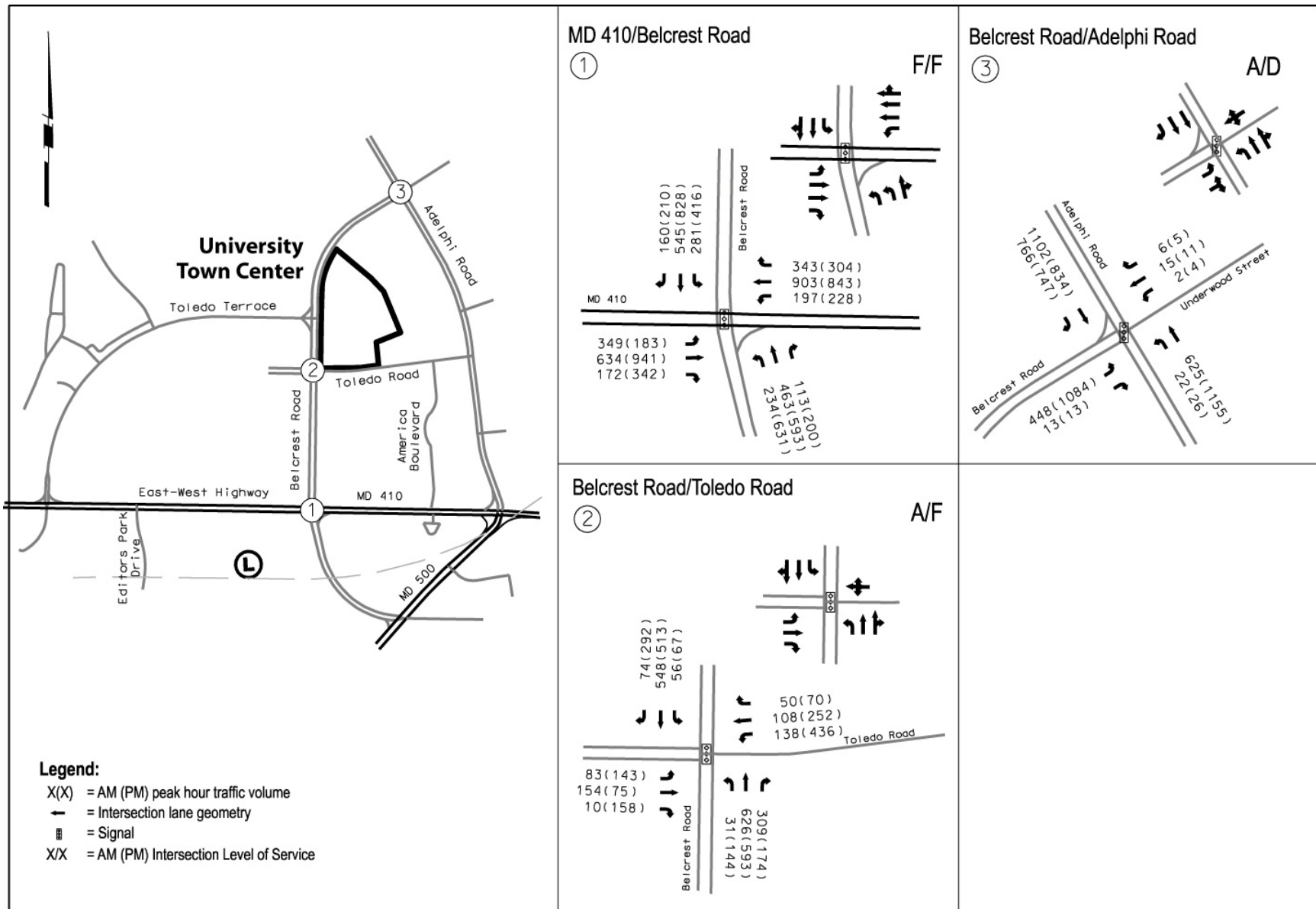


Figure 32. University Town Center Future Conditions with Proposed Action (Action Alternative) (not to scale)

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## 4. Conclusions

GSA is proposing to acquire space through leasing in order to collocate four of HHS's current leased locations in Suburban Maryland into one leased location to improve functional efficiency, with an employee move in date in 2014. This Traffic Technical Report was prepared to assess the potential transportation impacts resulting from GSA National Capital Region proposed HHS Lease Consolidation in Suburban Maryland. The number of federal employees to be collocated is approximately 2,900. GSA would enter into a lease agreement for up to 935,401 rentable square feet (rsf) of space. The delineated area for the lease is Suburban Maryland, within Montgomery County and Prince George's County and within three (3) miles driving distance of a Metrorail station. GSA has received multiple offers for sites that are potential locations for the lease consolidation.

The five action alternative locations considered for the proposed HHS Lease Consolidation were analyzed in detail in this Technical Traffic Report. They are:

- Irvington Centre at King Farm (King Farm);
- New Carrollton Metro;
- One Largo Metro;
- Parklawn Building; and
- University Town Center

Each of these sites was analyzed under three different conditions: Existing Conditions, Future Conditions without Proposed Action (No-Action), and Future Conditions with Proposed Action (Action Alternatives). In addition to the vehicular traffic impacts, the availability of transit, pedestrian, and bicycle facilities were studied. The following is the results of the study for each site.

For consistency the analysis did not take into account transit usage. Currently, HHS provides transit subsidies to 10-20 percent of the employees at the Parklawn Building. HHS should maintain this program. For the selected site, GSA would require the developer/owner to coordinate with the applicable local and/or State transportation planning agencies to determine the appropriate transportation mitigation measures to mitigate the traffic impacts associated with the HHS Lease Consolidation. The developer/owner would be required to implement any necessary roadway improvements and other potential transportation mitigation measures.

*Irvington Centre at King Farm* - The nearest metrorail station is approximately one mile from the proposed site and there are sidewalk and bicycle facilities connecting the site to the metrorail station. There are residential and commercial land uses along the path. There is also a shuttle which runs between the site and the metrorail station. Of the four intersections studied in the vicinity of the Irvington Centre at King Farm site, the project traffic is expected to increase the LOS to an unacceptable level at two intersections:

- King Farm Boulevard/Piccard Drive; and
- Shady Grove Road/Choke Cherry Road;

*New Carrollton Metro* - The nearest metrorail station is approximately 1,000 feet from the proposed site and there are sidewalk facilities connecting the site to the metrorail station. There are no properties located between the metrorail station and the proposed site. There are no dedicated

bicycle facilities in the vicinity of the site. There are also several bus routes which have stops at the closest metrorail station. Of the three intersections studied in the vicinity of the New Carrollton Metro site, the project traffic is expected to increase the LOS to an unacceptable level at two intersections:

- Veterans Parkway (MD410)/Ellin Road; and
- 85<sup>th</sup> Avenue/Annapolis Road (MD450)

*One Largo Metro* - The nearest metrorail station is approximately 500 feet from the proposed site and there are sidewalk facilities connecting the site to the metrorail station. There are no properties located between the metrorail station and the proposed site. There are no dedicated bicycle facilities in the vicinity of the site. There are several bus routes which have stops adjacent to the site.

Of the five intersections studied in the vicinity of the One Largo Metro site, the project traffic is expected to increase the LOS to an unacceptable level at two of the intersections:

- Lottsford Road/N. Harry S. Truman Drive; and
- Lottsford Road/Arena Drive

One of the intersections studied has an unacceptable LOS in the future condition without proposed action:

- Lottsford Road/Landover Road (MD 202)

However, the project is not expected to add to the level of unacceptability.

*Parklawn Building* - The nearest metrorail station is approximately 2,300 feet from the proposed site and there are sidewalk facilities connecting the site to the metrorail station. There are residential and commercial land uses along the path. There are no dedicated bicycle facilities in the vicinity of the site. There is a shuttle which runs between the Parklawn Building and the nearest metrorail station, as well as, several bus routes which have stops adjacent to the site. At the three intersections studied in the vicinity of the Parklawn Building site, the projected traffic is not expected to have an impact on the LOS. Two of the studied intersections are expected to have unacceptable LOS under the No-Action Alternative:

- Twinbrook Parkway/Veirs Mill Road (MD 586); and
- Twinbrook Parkway/Rollins Road/Rockville Pike (MD 355)

*University Town Center* - The nearest metrorail station is approximately 2,300 feet from the proposed site and there are sidewalk connecting the site to the metrorail station. There are residential and commercial land uses along the path. There are also on-street bicycle facilities in the vicinity of the site. There are several bus routes which have stops adjacent to the proposed site. Of the three intersections studied in the vicinity of the University Town Center site, the project traffic is expected to increase the LOS to an unacceptable level at two of the intersections:

- East-West Highway (MD 410)/Belcrest Road; and
- Belcrest Road/Toledo Road

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## **5. References**

Institute of Transportation Engineers (ITE), 2008. *Trip Generation*, 8th Edition.

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Maryland-National Capital Park and Planning Commission (M-NCPPC), Prince George's County Planning Department, 2002. *Guidelines for the Analysis of the Traffic Impact of Development Proposals*.

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## **Appendix A: Traffic Counts**

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## **Appendix B: Existing Level of Service Worksheets**

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## **Appendix C: Future Conditions with and without Development Level of Service Worksheets**

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